



Arm MVE Intrinsic

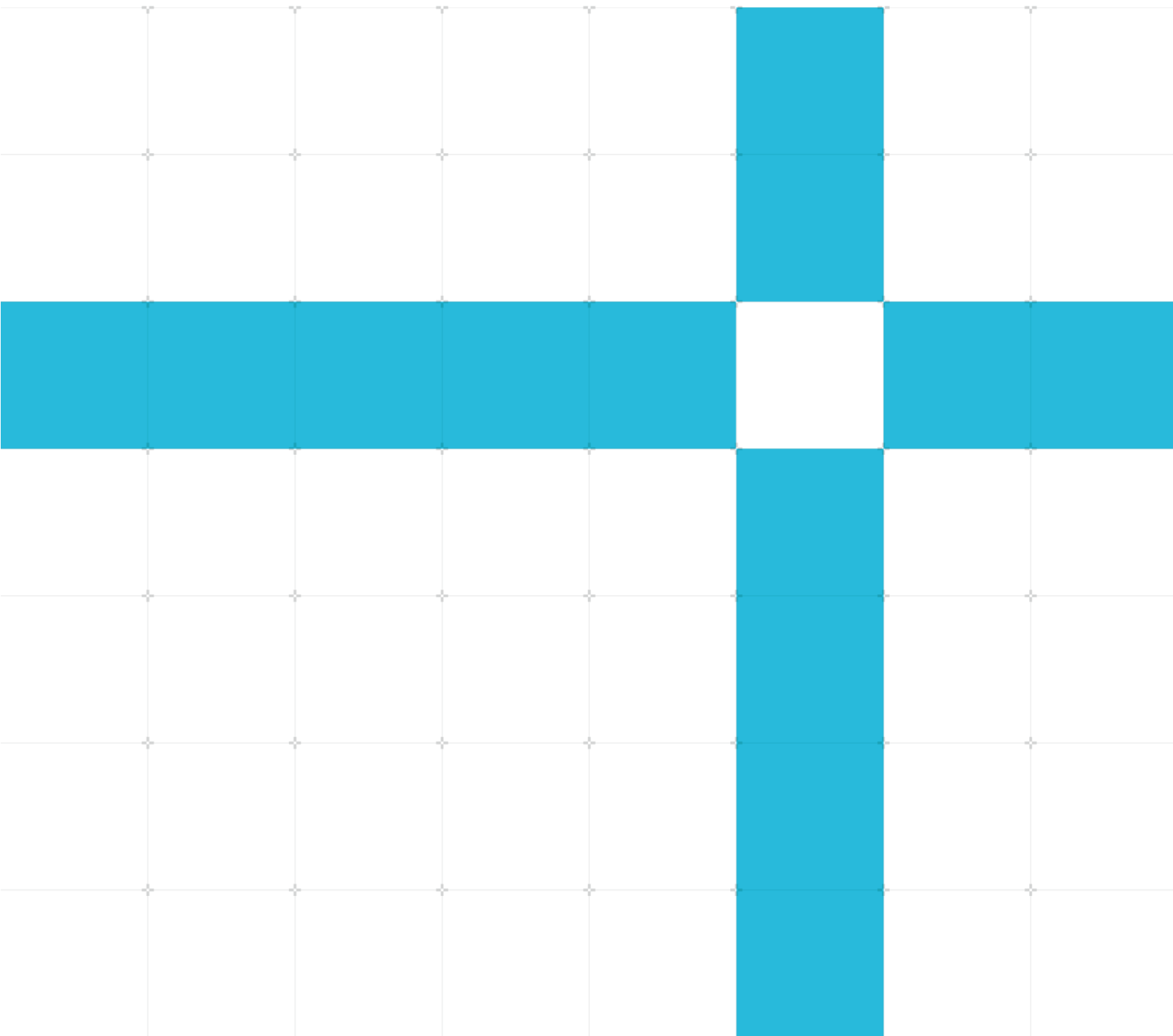
Reference for ACLE Q4 2019

Non-Confidential

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Issue Q419-00

101809



Arm MVE Intrinsic

Reference

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Release information

Document history

| Issue | Date | Confidentiality | Change |
|---------|-------------------|------------------|-----------------------|
| Q219-00 | 30 June 2019 | Non-Confidential | Version ACLE Q2 2019. |
| Q319-00 | 30 September 2019 | Non-Confidential | Version ACLE Q3 2019 |
| Q419-00 | 31 December 2019 | Non-Confidential | Version ACLE Q4 2019 |

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LES-PRE-20349

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Product Status

The information in this document is final, that is for a developed product.

Web Address

<http://www.arm.com>.

About this document

This document is complementary to the main Arm C Language Extensions (ACLE) specification, which can be found on developer.arm.com.

List of Intrinsics

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------------------|-------------------------|
| int8x16_t [__arm_]vrshlq_m_n[_s8](int8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.S8 Qda,Rm | Qda -> result | MVE |
| float16x8_t [__arm_]vcreateq_f16(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| float32x4_t [__arm_]vcreateq_f32(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| int8x16_t [__arm_]vcreateq_s8(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| int16x8_t [__arm_]vcreateq_s16(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| int32x4_t [__arm_]vcreateq_s32(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| int64x2_t [__arm_]vcreateq_s64(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| uint8x16_t [__arm_]vcreateq_u8(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
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| uint64x2_t [__arm_]vcreateq_u64(uint64_t a, uint64_t b) | a -> [Rt, Rt2] b -> [Rt3, Rt4] | VMOV Qd[2],Qd[0],Rt3,Rt VMOV Qd[3],Qd[1],Rt4,Rt2 | Qd -> result | MVE |
| uint8x16_t [__arm_]vddupq[_n]_u8(uint32_t a, const int imm) | a -> Rn imm in [1,2,4,8] | VDDUP.U8 Qd,Rn,imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vddupq[_n]_u16(uint32_t a, const int imm) | a -> Rn imm in [1,2,4,8] | VDDUP.U16 Qd,Rn,imm | Qd -> result | MVE |
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| uint8x16_t [__arm_]vddupq_x[_n]_u8(uint32_t a, const int imm, mve_pred16_t p) | a -> Rn imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VDDUPT.U8 Qd,Rn,imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vddupq_x[_n]_u16(uint32_t a, const int imm, mve_pred16_t p) | a -> Rn imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VDDUPT.U16 Qd,Rn,imm | Qd -> result | MVE |
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| uint32x4_t [__arm_]viwdupq[_n]_u32(uint32_t a, uint32_t b, const int imm) | a -> Rn b -> Rm imm in [1,2,4,8] | VIWDUP.U32 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint8x16_t [__arm_]viwdupq[_wb]_u8(uint32_t * a, uint32_t b, const int imm) | *a -> Rn b -> Rm imm in [1,2,4,8] | VIWDUP.U8 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint16x8_t [__arm_]viwdupq[_wb]_u16(uint32_t * a, uint32_t b, const int imm) | *a -> Rn b -> Rm imm in [1,2,4,8] | VIWDUP.U16 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint32x4_t [__arm_]viwdupq[_wb]_u32(uint32_t * a, uint32_t b, const int imm) | *a -> Rn b -> Rm imm in [1,2,4,8] | VIWDUP.U32 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|--|--------------------------|-------------------------|
| uint8x16_t [__arm_]viwdupq_m[_n_u8](uint8x16_t inactive, uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U8 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint16x8_t [__arm_]viwdupq_m[_n_u16](uint16x8_t inactive, uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U16 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint32x4_t [__arm_]viwdupq_m[_n_u32](uint32x4_t inactive, uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U32 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint8x16_t [__arm_]viwdupq_m[_wb_u8](uint8x16_t inactive, uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U8 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint16x8_t [__arm_]viwdupq_m[_wb_u16](uint16x8_t inactive, uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U16 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint32x4_t [__arm_]viwdupq_m[_wb_u32](uint32x4_t inactive, uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | inactive -> Qd *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U32 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint8x16_t [__arm_]viwdupq_x[_n_u8](uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U8 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint16x8_t [__arm_]viwdupq_x[_n_u16](uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U16 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint32x4_t [__arm_]viwdupq_x[_n_u32](uint32_t a, uint32_t b, const int imm, mve_pred16_t p) | a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U32 Qd,Rn,Rm,imm | Qd -> result | MVE |
| uint8x16_t [__arm_]viwdupq_x[_wb_u8](uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U8 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint16x8_t [__arm_]viwdupq_x[_wb_u16](uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U16 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| uint32x4_t [__arm_]viwdupq_x[_wb_u32](uint32_t * a, uint32_t b, const int imm, mve_pred16_t p) | *a -> Rn b -> Rm imm in [1,2,4,8] p -> Rp | VMSR P0,Rp VPST VIWDUPT.U32 Qd,Rn,Rm,imm | Qd -> result Rn -> *a | MVE |
| int8x16_t [__arm_]vdupq_n_s8(int8_t a) | a -> Rt | VDUP.8 Qd,Rt | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vdupq_n_s16(int16_t a) | a -> Rt | VDUP.16 Qd,Rt | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vdupq_n_s32(int32_t a) | a -> Rt | VDUP.32 Qd,Rt | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vdupq_n_u8(uint8_t a) | a -> Rt | VDUP.8 Qd,Rt | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vdupq_n_u16(uint16_t a) | a -> Rt | VDUP.16 Qd,Rt | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vdupq_n_u32(uint32_t a) | a -> Rt | VDUP.32 Qd,Rt | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vdupq_n_f16(float16_t a) | a -> Rt | VDUP.16 Qd,Rt | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vdupq_n_f32(float32_t a) | a -> Rt | VDUP.32 Qd,Rt | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vdupq_m[_n_s8](int8x16_t inactive, int8_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.8 Qd,Rt | Qd -> result | MVE |
| int16x8_t [__arm_]vdupq_m[_n_s16](int16x8_t inactive, int16_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |
| int32x4_t [__arm_]vdupq_m[_n_s32](int32x4_t inactive, int32_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| uint8x16_t [__arm_]vdupq_m[_n_u8](uint8x16_t inactive, uint8_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.8 Qd,Rt | Qd -> result | MVE |
| uint16x8_t [__arm_]vdupq_m[_n_u16](uint16x8_t inactive, uint16_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--------------------------------------|---|--------------|-------------------------|
| uint32x4_t [__arm_]vdupq_m[_n_u32](uint32x4_t inactive, uint32_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| float16x8_t [__arm_]vdupq_m[_n_f16](float16x8_t inactive, float16_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |
| float32x4_t [__arm_]vdupq_m[_n_f32](float32x4_t inactive, float32_t a, mve_pred16_t p) | inactive -> Qd a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| int8x16_t [__arm_]vdupq_x_n_s8(int8_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.8 Qd,Rt | Qd -> result | MVE |
| int16x8_t [__arm_]vdupq_x_n_s16(int16_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |
| int32x4_t [__arm_]vdupq_x_n_s32(int32_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| uint8x16_t [__arm_]vdupq_x_n_u8(uint8_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.8 Qd,Rt | Qd -> result | MVE |
| uint16x8_t [__arm_]vdupq_x_n_u16(uint16_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |
| uint32x4_t [__arm_]vdupq_x_n_u32(uint32_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| float16x8_t [__arm_]vdupq_x_n_f16(float16_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.16 Qd,Rt | Qd -> result | MVE |
| float32x4_t [__arm_]vdupq_x_n_f32(float32_t a, mve_pred16_t p) | a -> Rt p -> Rp | VMSR P0,Rp VPST VDUPT.32 Qd,Rt | Qd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMP.F16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMP.F32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VCMP.I8 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VCMP.I16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VCMP.I32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VCMP.I8 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VCMP.I16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VCMP.I32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VCMP.F16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VCMP.F32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VCMP.I8 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VCMP.I16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VCMP.I32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VCMP.I8 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VCMP.I16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VCMP.I32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.F16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.F32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-------------------------------|--|--------------|-------------------------|
| mve_pred16_t [__arm_]vcmpqq_m[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 eq,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.F16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.F32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpqq_m[n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 eq,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMP.F16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMP.F32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VCMP.I8 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VCMP.I16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VCMP.I32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VCMP.I8 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VCMP.I16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VCMP.I32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.F16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-------------------------------|--|--------------|-------------------------|
| mve_pred16_t [__arm_]vcmpneq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.F32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 ne,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VCMP.F16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VCMP.F32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VCMP.I8 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VCMP.I16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VCMP.I32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VCMP.I8 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VCMP.I16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VCMP.I32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.F16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.F32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I8 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I16 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpneq_m[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.I32 ne,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|-------------------------------|---|--------------|-------------------------|
| <code>mve_pred16_t [__arm_]vcmpgeq[_f16](float16x8_t a, float16x8_t b)</code> | a -> Qn b -> Qm | VCMP.F16 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq[_f32](float32x4_t a, float32x4_t b)</code> | a -> Qn b -> Qm | VCMP.F32 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qn b -> Qm | VCMP.S8 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq[_s16](int16x8_t a, int16x8_t b)</code> | a -> Qn b -> Qm | VCMP.S16 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq[_s32](int32x4_t a, int32x4_t b)</code> | a -> Qn b -> Qm | VCMP.S32 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.F16 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.F32 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq_m[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S8 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq_m[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S16 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgeq_m[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S32 ge,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_n_f16](float16x8_t a, float16_t b)</code> | a -> Qn b -> Rm | VCMP.F16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_n_f32](float32x4_t a, float32_t b)</code> | a -> Qn b -> Rm | VCMP.F32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_n_s8](int8x16_t a, int8_t b)</code> | a -> Qn b -> Rm | VCMP.S8 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_n_s16](int16x8_t a, int16_t b)</code> | a -> Qn b -> Rm | VCMP.S16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_n_s32](int32x4_t a, int32_t b)</code> | a -> Qn b -> Rm | VCMP.S32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.F16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.F32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S8 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_f16](float16x8_t a, float16x8_t b)</code> | a -> Qn b -> Qm | VCMP.F16 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_f32](float32x4_t a, float32x4_t b)</code> | a -> Qn b -> Qm | VCMP.F32 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qn b -> Qm | VCMP.S8 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_s16](int16x8_t a, int16x8_t b)</code> | a -> Qn b -> Qm | VCMP.S16 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq[_s32](int32x4_t a, int32x4_t b)</code> | a -> Qn b -> Qm | VCMP.S32 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpgtq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.F16 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-------------------------------|---|--------------|-------------------------|
| mve_pred16_t [__arm_]vcmpgtq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.F32 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S8 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S16 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S32 gt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VCMP.F16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VCMP.F32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VCMP.S8 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VCMP.S16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VCMP.S32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.T.F16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.T.F32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.T.S8 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.T.S16 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpgtq_m[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.T.S32 gt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMP.F16 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMP.F32 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VCMP.S8 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VCMP.S16 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VCMP.S32 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.F16 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.F32 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq_m[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S8 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq_m[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S16 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmpleq_m[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.T.S32 le,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-------------------------------|---|--------------|-------------------------|
| <code>mve_pred16_t [__arm_]vcmpq[<u>n</u>_f16](float16x8_t a, float16_t b)</code> | a -> Qn b -> Rm | VCMP.F16 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq[<u>n</u>_f32](float32x4_t a, float32_t b)</code> | a -> Qn b -> Rm | VCMP.F32 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq[<u>n</u>_s8](int8x16_t a, int8_t b)</code> | a -> Qn b -> Rm | VCMP.S8 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq[<u>n</u>_s16](int16x8_t a, int16_t b)</code> | a -> Qn b -> Rm | VCMP.S16 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq[<u>n</u>_s32](int32x4_t a, int32_t b)</code> | a -> Qn b -> Rm | VCMP.S32 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq_m[<u>n</u>_f16](float16x8_t a, float16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.F16 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq_m[<u>n</u>_f32](float32x4_t a, float32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.F32 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq_m[<u>n</u>_s8](int8x16_t a, int8_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S8 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq_m[<u>n</u>_s16](int16x8_t a, int16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S16 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpq_m[<u>n</u>_s32](int32x4_t a, int32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.S32 le,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>f</u>_f16](float16x8_t a, float16x8_t b)</code> | a -> Qn b -> Qm | VCMP.F16 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>f</u>_f32](float32x4_t a, float32x4_t b)</code> | a -> Qn b -> Qm | VCMP.F32 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>s</u>_s8](int8x16_t a, int8x16_t b)</code> | a -> Qn b -> Qm | VCMP.S8 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>s</u>_s16](int16x8_t a, int16x8_t b)</code> | a -> Qn b -> Qm | VCMP.S16 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>s</u>_s32](int32x4_t a, int32x4_t b)</code> | a -> Qn b -> Qm | VCMP.S32 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>f</u>_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.F16 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>f</u>_f32](float32x4_t a, float32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.F32 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>s</u>_s8](int8x16_t a, int8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S8 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>s</u>_s16](int16x8_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S16 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>s</u>_s32](int32x4_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMP.S32 lt,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>n</u>_f16](float16x8_t a, float16_t b)</code> | a -> Qn b -> Rm | VCMP.F16 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>n</u>_f32](float32x4_t a, float32_t b)</code> | a -> Qn b -> Rm | VCMP.F32 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>n</u>_s8](int8x16_t a, int8_t b)</code> | a -> Qn b -> Rm | VCMP.S8 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>n</u>_s16](int16x8_t a, int16_t b)</code> | a -> Qn b -> Rm | VCMP.S16 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq[<u>n</u>_s32](int32x4_t a, int32_t b)</code> | a -> Qn b -> Rm | VCMP.S32 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmplq_m[<u>n</u>_f16](float16x8_t a, float16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMP.F16 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-------------------------------|--|--------------|-------------------------|
| <code>mve_pred16_t [__arm_]vcmltq_m[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.F32 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmltq_m[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.S8 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmltq_m[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.S16 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmltq_m[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.S32 lt,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_u8](uint8x16_t a, uint8x16_t b)</code> | a -> Qn b -> Qm | VCMP.U8 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_u16](uint16x8_t a, uint16x8_t b)</code> | a -> Qn b -> Qm | VCMP.U16 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_u32](uint32x4_t a, uint32x4_t b)</code> | a -> Qn b -> Qm | VCMP.U32 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U8 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U16 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U32 cs,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_n_u8](uint8x16_t a, uint8_t b)</code> | a -> Qn b -> Rm | VCMP.U8 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_n_u16](uint16x8_t a, uint16_t b)</code> | a -> Qn b -> Rm | VCMP.U16 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq[_n_u32](uint32x4_t a, uint32_t b)</code> | a -> Qn b -> Rm | VCMP.U32 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U8 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U16 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmpcsq_m[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p)</code> | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U32 cs,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_u8](uint8x16_t a, uint8x16_t b)</code> | a -> Qn b -> Qm | VCMP.U8 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_u16](uint16x8_t a, uint16x8_t b)</code> | a -> Qn b -> Qm | VCMP.U16 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_u32](uint32x4_t a, uint32x4_t b)</code> | a -> Qn b -> Qm | VCMP.U32 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq_m[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U8 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq_m[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U16 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq_m[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMPT.U32 hi,Qn,Qm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_n_u8](uint8x16_t a, uint8_t b)</code> | a -> Qn b -> Rm | VCMP.U8 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_n_u16](uint16x8_t a, uint16_t b)</code> | a -> Qn b -> Rm | VCMP.U16 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| <code>mve_pred16_t [__arm_]vcmphiq[_n_u32](uint32x4_t a, uint32_t b)</code> | a -> Qn b -> Rm | VCMP.U32 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| mve_pred16_t [__arm_]vcmphiq_m[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U8 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmphiq_m[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U16 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vcmphiq_m[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VCMPT.U32 hi,Qn,Rm VMRS Rd,P0 | Rd -> result | MVE |
| int8x16_t [__arm_]vminq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMIN.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vminq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMIN.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vminq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMIN.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vminq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMIN.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vminq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMIN.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vminq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMIN.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vminq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vminq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vminq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vminq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vminq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vminq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vminq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vminq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vminq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vminq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vminq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vminq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vminaq[_s8](uint8x16_t a, int8x16_t b) | a -> Qda b -> Qm | VMINA.S8 Qda,Qm | Qda -> result | MVE |
| uint16x8_t [__arm_]vminaq[_s16](uint16x8_t a, int16x8_t b) | a -> Qda b -> Qm | VMINA.S16 Qda,Qm | Qda -> result | MVE |
| uint32x4_t [__arm_]vminaq[_s32](uint32x4_t a, int32x4_t b) | a -> Qda b -> Qm | VMINA.S32 Qda,Qm | Qda -> result | MVE |
| uint8x16_t [__arm_]vminaq_m[_s8](uint8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAT.S8 Qda,Qm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| <code>uint16x8_t [__arm_]vminaq_m[s16](uint16x8_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAT.S16 Qda,Qm | Qda -> result | MVE |
| <code>uint32x4_t [__arm_]vminaq_m[s32](uint32x4_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAT.S32 Qda,Qm | Qda -> result | MVE |
| <code>int8_t [__arm_]vminvq[s8](int8_t a, int8x16_t b)</code> | a -> Rda b -> Qm | VMINV.S8 Rda,Qm | Rda -> result | MVE |
| <code>int16_t [__arm_]vminvq[s16](int16_t a, int16x8_t b)</code> | a -> Rda b -> Qm | VMINV.S16 Rda,Qm | Rda -> result | MVE |
| <code>int32_t [__arm_]vminvq[s32](int32_t a, int32x4_t b)</code> | a -> Rda b -> Qm | VMINV.S32 Rda,Qm | Rda -> result | MVE |
| <code>uint8_t [__arm_]vminvq[u8](uint8_t a, uint8x16_t b)</code> | a -> Rda b -> Qm | VMINV.U8 Rda,Qm | Rda -> result | MVE |
| <code>uint16_t [__arm_]vminvq[u16](uint16_t a, uint16x8_t b)</code> | a -> Rda b -> Qm | VMINV.U16 Rda,Qm | Rda -> result | MVE |
| <code>uint32_t [__arm_]vminvq[u32](uint32_t a, uint32x4_t b)</code> | a -> Rda b -> Qm | VMINV.U32 Rda,Qm | Rda -> result | MVE |
| <code>int8_t [__arm_]vminvq_p[s8](int8_t a, int8x16_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.S8 Rda,Qm | Rda -> result | MVE |
| <code>int16_t [__arm_]vminvq_p[s16](int16_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.S16 Rda,Qm | Rda -> result | MVE |
| <code>int32_t [__arm_]vminvq_p[s32](int32_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.S32 Rda,Qm | Rda -> result | MVE |
| <code>uint8_t [__arm_]vminvq_p[u8](uint8_t a, uint8x16_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.U8 Rda,Qm | Rda -> result | MVE |
| <code>uint16_t [__arm_]vminvq_p[u16](uint16_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.U16 Rda,Qm | Rda -> result | MVE |
| <code>uint32_t [__arm_]vminvq_p[u32](uint32_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINVT.U32 Rda,Qm | Rda -> result | MVE |
| <code>uint8_t [__arm_]vminavq[s8](uint8_t a, int8x16_t b)</code> | a -> Rda b -> Qm | VMINAV.S8 Rda,Qm | Rda -> result | MVE |
| <code>uint16_t [__arm_]vminavq[s16](uint16_t a, int16x8_t b)</code> | a -> Rda b -> Qm | VMINAV.S16 Rda,Qm | Rda -> result | MVE |
| <code>uint32_t [__arm_]vminavq[s32](uint32_t a, int32x4_t b)</code> | a -> Rda b -> Qm | VMINAV.S32 Rda,Qm | Rda -> result | MVE |
| <code>uint8_t [__arm_]vminavq_p[s8](uint8_t a, int8x16_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAVT.S8 Rda,Qm | Rda -> result | MVE |
| <code>uint16_t [__arm_]vminavq_p[s16](uint16_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAVT.S16 Rda,Qm | Rda -> result | MVE |
| <code>uint32_t [__arm_]vminavq_p[s32](uint32_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINAVT.S32 Rda,Qm | Rda -> result | MVE |
| <code>float16x8_t [__arm_]vminnmq[_f16](float16x8_t a, float16x8_t b)</code> | a -> Qn b -> Qm | VMINNM.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| <code>float32x4_t [__arm_]vminnmq[_f32](float32x4_t a, float32x4_t b)</code> | a -> Qn b -> Qm | VMINNM.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| <code>float16x8_t [__arm_]vminnmq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNM.F16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>float32x4_t [__arm_]vminnmq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNM.F32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>float16x8_t [__arm_]vminnmq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNM.F16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>float32x4_t [__arm_]vminnmq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNM.F32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>float16x8_t [__arm_]vminnmaq[_f16](float16x8_t a, float16x8_t b)</code> | a -> Qda b -> Qm | VMINNMA.F16 Qda,Qm | Qda -> result | MVE |
| <code>float32x4_t [__arm_]vminnmaq[_f32](float32x4_t a, float32x4_t b)</code> | a -> Qda b -> Qm | VMINNMA.F32 Qda,Qm | Qda -> result | MVE |
| <code>float16x8_t [__arm_]vminnmaq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p)</code> | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMAT.F16 Qda,Qm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| float32x4_t [__arm_]vminmaq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMAT.F32 Qda,Qm | Qda -> result | MVE |
| float16_t [__arm_]vminmvq[_f16](float16_t a, float16x8_t b) | a -> Rda b -> Qm | VMINNMV.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vminmvq[_f32](float32_t a, float32x4_t b) | a -> Rda b -> Qm | VMINNMV.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vminmvq_p[_f16](float16_t a, float16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMVT.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vminmvq_p[_f32](float32_t a, float32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMVT.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vminmvq[_f16](float16_t a, float16x8_t b) | a -> Rda b -> Qm | VMINNMV.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vminmvq[_f32](float32_t a, float32x4_t b) | a -> Rda b -> Qm | VMINNMV.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vminmvq_p[_f16](float16_t a, float16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMVT.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vminmvq_p[_f32](float32_t a, float32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMINNMVT.F32 Rda,Qm | Rda -> result | MVE |
| int8x16_t [__arm_]vmaxq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMAX.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vmaxq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMAX.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vmaxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMAX.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vmaxq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMAX.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vmaxq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMAX.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vmaxq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMAX.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vmaxq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmaxq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmaxq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmaxq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmaxq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmaxq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmaxq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmaxq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmaxq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmaxq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmaxq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmaxq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXT.U32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| uint8x16_t [__arm_]vmaxaq[_s8](uint8x16_t a, int8x16_t b) | a -> Qda b -> Qm | VMAXA.S8 Qda,Qm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmaxaq[_s16](uint16x8_t a, int16x8_t b) | a -> Qda b -> Qm | VMAXA.S16 Qda,Qm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmaxaq[_s32](uint32x4_t a, int32x4_t b) | a -> Qda b -> Qm | VMAXA.S32 Qda,Qm | Qda -> result | MVE |
| uint8x16_t [__arm_]vmaxaq_m[_s8](uint8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAT.S8 Qda,Qm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmaxaq_m[_s16](uint16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAT.S16 Qda,Qm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmaxaq_m[_s32](uint32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAT.S32 Qda,Qm | Qda -> result | MVE |
| int8_t [__arm_]vmaxvq[_s8](int8_t a, int8x16_t b) | a -> Rda b -> Qm | VMAXV.S8 Rda,Qm | Rda -> result | MVE |
| int16_t [__arm_]vmaxvq[_s16](int16_t a, int16x8_t b) | a -> Rda b -> Qm | VMAXV.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmaxvq[_s32](int32_t a, int32x4_t b) | a -> Rda b -> Qm | VMAXV.S32 Rda,Qm | Rda -> result | MVE |
| uint8_t [__arm_]vmaxvq[_u8](uint8_t a, uint8x16_t b) | a -> Rda b -> Qm | VMAXV.U8 Rda,Qm | Rda -> result | MVE |
| uint16_t [__arm_]vmaxvq[_u16](uint16_t a, uint16x8_t b) | a -> Rda b -> Qm | VMAXV.U16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmaxvq[_u32](uint32_t a, uint32x4_t b) | a -> Rda b -> Qm | VMAXV.U32 Rda,Qm | Rda -> result | MVE |
| int8_t [__arm_]vmaxvq_p[_s8](int8_t a, int8x16_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.S8 Rda,Qm | Rda -> result | MVE |
| int16_t [__arm_]vmaxvq_p[_s16](int16_t a, int16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmaxvq_p[_s32](int32_t a, int32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.S32 Rda,Qm | Rda -> result | MVE |
| uint8_t [__arm_]vmaxvq_p[_u8](uint8_t a, uint8x16_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.U8 Rda,Qm | Rda -> result | MVE |
| uint16_t [__arm_]vmaxvq_p[_u16](uint16_t a, uint16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.U16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmaxvq_p[_u32](uint32_t a, uint32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXVT.U32 Rda,Qm | Rda -> result | MVE |
| uint8_t [__arm_]vmaxavq[_s8](uint8_t a, int8x16_t b) | a -> Rda b -> Qm | VMAXAV.S8 Rda,Qm | Rda -> result | MVE |
| uint16_t [__arm_]vmaxavq[_s16](uint16_t a, int16x8_t b) | a -> Rda b -> Qm | VMAXAV.S16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmaxavq[_s32](uint32_t a, int32x4_t b) | a -> Rda b -> Qm | VMAXAV.S32 Rda,Qm | Rda -> result | MVE |
| uint8_t [__arm_]vmaxavq_p[_s8](uint8_t a, int8x16_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAVT.S8 Rda,Qm | Rda -> result | MVE |
| uint16_t [__arm_]vmaxavq_p[_s16](uint16_t a, int16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAVT.S16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmaxavq_p[_s32](uint32_t a, int32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXAVT.S32 Rda,Qm | Rda -> result | MVE |
| float16x8_t [__arm_]vmaxnmq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VMAXNM.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vmaxnmq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VMAXNM.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vmaxnmq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vmaxnmq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vmaxnmq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMT.F16 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| float32x4_t [__arm_]vmaxnmq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vmaxnmaq[_f16](float16x8_t a, float16x8_t b) | a -> Qda b -> Qm | VMAXNMA.F16 Qda,Qm | Qda -> result | MVE |
| float32x4_t [__arm_]vmaxnmaq[_f32](float32x4_t a, float32x4_t b) | a -> Qda b -> Qm | VMAXNMA.F32 Qda,Qm | Qda -> result | MVE |
| float16x8_t [__arm_]vmaxnmaq_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMAT.F16 Qda,Qm | Qda -> result | MVE |
| float32x4_t [__arm_]vmaxnmaq_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMAT.F32 Qda,Qm | Qda -> result | MVE |
| float16_t [__arm_]vmaxnmvq[_f16](float16_t a, float16x8_t b) | a -> Rda b -> Qm | VMAXNMV.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vmaxnmvq[_f32](float32_t a, float32x4_t b) | a -> Rda b -> Qm | VMAXNMV.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vmaxnmvq_p[_f16](float16_t a, float16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMVT.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vmaxnmvq_p[_f32](float32_t a, float32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMVT.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vmaxnmavq[_f16](float16_t a, float16x8_t b) | a -> Rda b -> Qm | VMAXNMAV.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vmaxnmavq[_f32](float32_t a, float32x4_t b) | a -> Rda b -> Qm | VMAXNMAV.F32 Rda,Qm | Rda -> result | MVE |
| float16_t [__arm_]vmaxnmavq_p[_f16](float16_t a, float16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMAVT.F16 Rda,Qm | Rda -> result | MVE |
| float32_t [__arm_]vmaxnmavq_p[_f32](float32_t a, float32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VMAXNMAVT.F32 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_s8](uint32_t a, int8x16_t b, int8x16_t c) | a -> Rda b -> Qn c -> Qm | VABAV.S8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_s16](uint32_t a, int16x8_t b, int16x8_t c) | a -> Rda b -> Qn c -> Qm | VABAV.S16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_s32](uint32_t a, int32x4_t b, int32x4_t c) | a -> Rda b -> Qn c -> Qm | VABAV.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_u8](uint32_t a, uint8x16_t b, uint8x16_t c) | a -> Rda b -> Qn c -> Qm | VABAV.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_u16](uint32_t a, uint16x8_t b, uint16x8_t c) | a -> Rda b -> Qn c -> Qm | VABAV.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq[_u32](uint32_t a, uint32x4_t b, uint32x4_t c) | a -> Rda b -> Qn c -> Qm | VABAV.U32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_s8](uint32_t a, int8x16_t b, int8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_s16](uint32_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_s32](uint32_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_u8](uint32_t a, uint8x16_t b, uint8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_u16](uint32_t a, uint16x8_t b, uint16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vabavq_p[_u32](uint32_t a, uint32x4_t b, uint32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VABAVT.U32 Rda,Qn,Qm | Rda -> result | MVE |
| int8x16_t [__arm_]vabdq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VABD.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int16x8_t [__arm_]vabdq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VABD.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vabdq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VABD.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vabdq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VABD.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vabdq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VABD.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vabdq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VABD.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vabdq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VABD.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vabdq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VABD.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vabdq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vabdq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vabdq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vabdq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vabdq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vabdq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vabdq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vabdq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vabdq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vabdq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vabdq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vabdq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vabdq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vabdq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vabdq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vabdq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VABDT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vabsq[_f16](float16x8_t a) | a -> Qm | VABS.F16 Qd,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vabsq[_f32](float32x4_t a) | a -> Qm | VABS.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vabsq[_s8](int8x16_t a) | a -> Qm | VABS.S8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vabsq[_s16](int16x8_t a) | a -> Qm | VABS.S16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vabsq[_s32](int32x4_t a) | a -> Qm | VABS.S32 Qd,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|-------------------------------------|-------------------------|
| float16x8_t [__arm_]vabsq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vabsq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.F32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vabsq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vabsq_m[_s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vabsq_m[_s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vabsq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vabsq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.F32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vabsq_x[_s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vabsq_x[_s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vabsq_x[_s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VABST.S32 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vadcq[_s32](int32x4_t a, int32x4_t b, unsigned * carry_out) | a -> Qn b -> Qm | VADC.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| uint32x4_t [__arm_]vadcq[_u32](uint32x4_t a, uint32x4_t b, unsigned * carry_out) | a -> Qn b -> Qm | VADC.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| int32x4_t [__arm_]vadcq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, unsigned * carry_out, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADCIT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| uint32x4_t [__arm_]vadcq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, unsigned * carry_out, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADCIT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| int32x4_t [__arm_]vadcq[_s32](int32x4_t a, int32x4_t b, unsigned * carry) | a -> Qn b -> Qm *carry -> Rt | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VADC.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| uint32x4_t [__arm_]vadcq[_u32](uint32x4_t a, uint32x4_t b, unsigned * carry) | a -> Qn b -> Qm *carry -> Rt | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VADC.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| int32x4_t [__arm_]vadcq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, unsigned * carry, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm *carry -> Rt p -> Rp | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VMSR P0,Rp VPST VADCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|------------------------------|-------------------------|
| uint32x4_t [__arm_]vaddq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, unsigned * carry, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm *carry -> Rt p -> Rp | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VMSR P0,Rp VPST VADCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| float16x8_t [__arm_]vaddq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VADD.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vaddq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VADD.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vaddq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VADD.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vaddq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VADD.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vaddq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VADD.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vaddq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VADD.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vaddq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VADD.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vaddq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VADD.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vaddq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VADD.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vaddq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VADD.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vaddq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VADD.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vaddq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VADD.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vaddq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VADD.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vaddq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VADD.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vaddq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VADD.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vaddq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VADD.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vaddq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vaddq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vaddq_m[_n_f16](float16x8_t inactive, float16x8_t a, float16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vaddq_m[_n_f32](float32x4_t inactive, float32x4_t a, float32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vaddq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vaddq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vaddq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vaddq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vaddq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Rm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int32x4_t [__arm_]vaddq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vaddq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vaddq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vaddq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vaddq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vaddq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vaddq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vaddq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vaddq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vaddq_x[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vaddq_x[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vaddq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vaddq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vaddq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vaddq_x[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vaddq_x[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vaddq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vaddq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vaddq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vaddq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vaddq_x[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vaddq_x[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vaddq_x[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VADDT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vclsq[_s8](int8x16_t a) | a -> Qm | VCLS.S8 Qd,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--------------------------------------|--|--------------|-------------------------|
| int16x8_t [__arm_]vclsq[_s16](int16x8_t a) | a -> Qm | VCLS.S16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vclsq[_s32](int32x4_t a) | a -> Qm | VCLS.S32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vclsq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vclsq_m[_s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vclsq_m[_s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vclsq_x[_s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vclsq_x[_s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vclsq_x[_s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLST.S32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vclzq[_s8](int8x16_t a) | a -> Qm | VCLZ.I8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vclzq[_s16](int16x8_t a) | a -> Qm | VCLZ.I16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vclzq[_s32](int32x4_t a) | a -> Qm | VCLZ.I32 Qd,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vclzq[_u8](uint8x16_t a) | a -> Qm | VCLZ.I8 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vclzq[_u16](uint16x8_t a) | a -> Qm | VCLZ.I16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vclzq[_u32](uint32x4_t a) | a -> Qm | VCLZ.I32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vclzq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vclzq_m[_s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vclzq_m[_s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vclzq_m[_u8](uint8x16_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I8 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vclzq_m[_u16](uint16x8_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vclzq_m[_u32](uint32x4_t inactive, uint32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vclzq_x[_s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vclzq_x[_s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vclzq_x[_s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vclzq_x[_u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I8 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vclzq_x[_u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vclzq_x[_u32](uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCLZT.I32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vnegq[_f16](float16x8_t a) | a -> Qm | VNEG.F16 Qd,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vnegq[_f32](float32x4_t a) | a -> Qm | VNEG.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vnegq[_s8](int8x16_t a) | a -> Qm | VNEG.S8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vnegq[_s16](int16x8_t a) | a -> Qm | VNEG.S16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vnegq[_s32](int32x4_t a) | a -> Qm | VNEG.S32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vnegq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.T.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vnegq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.T.F32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vnegq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.T.S8 Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|--------------|-------------------------|
| int16x8_t [__arm_]vnegq_m[s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vnegq_m[s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.S32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vnegq_x[f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vnegq_x[f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.F32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vnegq_x[s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vnegq_x[s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vnegq_x[s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VNEG.S32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulhq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMULH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulhq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMULH.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMULH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulhq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMULH.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulhq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMULH.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulhq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMULH.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulhq_m[s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulhq_m[s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulhq_m[s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulhq_m[u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulhq_m[u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulhq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulhq_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulhq_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulhq_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulhq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulhq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulhq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULHT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmullbq_poly[p8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMULLB.P8 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| <code>uint32x4_t [__arm_]vmullbq_poly[_p16](uint16x8_t a, uint16x8_t b)</code> | a -> Qn b -> Qm | VMULLB.P16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vmullbq_int[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qn b -> Qm | VMULLB.S8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int32x4_t [__arm_]vmullbq_int[_s16](int16x8_t a, int16x8_t b)</code> | a -> Qn b -> Qm | VMULLB.S16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int64x2_t [__arm_]vmullbq_int[_s32](int32x4_t a, int32x4_t b)</code> | a -> Qn b -> Qm | VMULLB.S32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmullbq_int[_u8](uint8x16_t a, uint8x16_t b)</code> | a -> Qn b -> Qm | VMULLB.U8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmullbq_int[_u16](uint16x8_t a, uint16x8_t b)</code> | a -> Qn b -> Qm | VMULLB.U16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint64x2_t [__arm_]vmullbq_int[_u32](uint32x4_t a, uint32x4_t b)</code> | a -> Qn b -> Qm | VMULLB.U32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmullbq_poly_m[_p8](uint16x8_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.P8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmullbq_poly_m[_p16](uint32x4_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.P16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vmullbq_int_m[_s8](int16x8_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int32x4_t [__arm_]vmullbq_int_m[_s16](int32x4_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int64x2_t [__arm_]vmullbq_int_m[_s32](int64x2_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmullbq_int_m[_u8](uint16x8_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmullbq_int_m[_u16](uint32x4_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint64x2_t [__arm_]vmullbq_int_m[_u32](uint64x2_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmullbq_poly_x[_p8](uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.P8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmullbq_poly_x[_p16](uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.P16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vmullbq_int_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int32x4_t [__arm_]vmullbq_int_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int64x2_t [__arm_]vmullbq_int_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmullbq_int_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmullbq_int_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint64x2_t [__arm_]vmullbq_int_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLBT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vmulltq_poly[_p8](uint8x16_t a, uint8x16_t b)</code> | a -> Qn b -> Qm | VMULLT.P8 Qd,Qn,Qm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vmulltq_poly[_p16](uint16x8_t a, uint16x8_t b)</code> | a -> Qn b -> Qm | VMULLT.P16 Qd,Qn,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vmulltq_int[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qn b -> Qm | VMULLT.S8 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| int32x4_t [__arm_]vmulltq_int[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMULLT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vmulltq_int[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMULLT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulltq_int[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMULLT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulltq_int[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMULLT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint64x2_t [__arm_]vmulltq_int[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMULLT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulltq_poly_m[_p8](uint16x8_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.P8 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulltq_poly_m[_p16](uint32x4_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.P16 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulltq_int_m[_s8](int16x8_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulltq_int_m[_s16](int32x4_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vmulltq_int_m[_s32](int64x2_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulltq_int_m[_u8](uint16x8_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulltq_int_m[_u16](uint32x4_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint64x2_t [__arm_]vmulltq_int_m[_u32](uint64x2_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulltq_poly_x[_p8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.P8 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulltq_poly_x[_p16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.P16 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulltq_int_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulltq_int_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vmulltq_int_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulltq_int_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulltq_int_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint64x2_t [__arm_]vmulltq_int_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULLTT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vmulq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VMUL.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vmulq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VMUL.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vmulq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VMUL.F16 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vmulq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VMUL.F32 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vmulq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMUL.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int16x8_t [__arm_]vmulq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMUL.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vmulq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMUL.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vmulq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VMUL.I8 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vmulq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VMUL.I16 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vmulq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VMUL.I32 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vmulq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMUL.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vmulq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMUL.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vmulq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMUL.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vmulq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VMUL.I8 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vmulq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VMUL.I16 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vmulq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VMUL.I32 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vmulq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vmulq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vmulq_m[_n_f16](float16x8_t inactive, float16x8_t a, float16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vmulq_m[_n_f32](float32x4_t inactive, float32x4_t a, float32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------------------------|-------------------------|
| uint8x16_t [__arm_]vmulq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vmulq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vmulq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vmulq_x[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vmulq_x[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmulq_x[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vmulq_x[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vmulq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmulq_x[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmulq_x[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmulq_x[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VMULT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vsbcq[_s32](int32x4_t a, int32x4_t b, unsigned * carry_out) | a -> Qn b -> Qm | VSBCI.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| uint32x4_t [__arm_]vsbcq[_u32](uint32x4_t a, uint32x4_t b, unsigned * carry_out) | a -> Qn b -> Qm | VSBCI.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| int32x4_t [__arm_]vsbcq[_m_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, unsigned * carry_out, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSBCIT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|----------------------------------|-------------------------|
| uint32x4_t [__arm_]vsbcq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, unsigned * carry_out, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSBCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry_out | MVE |
| int32x4_t [__arm_]vsbcq[_s32](int32x4_t a, int32x4_t b, unsigned * carry) | a -> Qn b -> Qm *carry -> Rt | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VSBCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| uint32x4_t [__arm_]vsbcq[_u32](uint32x4_t a, uint32x4_t b, unsigned * carry) | a -> Qn b -> Qm *carry -> Rt | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VSBCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| int32x4_t [__arm_]vsbcq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, unsigned * carry, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm *carry -> Rt p -> Rp | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VMSR P0,Rp VPST VSBCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| uint32x4_t [__arm_]vsbcq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, unsigned * carry, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm *carry -> Rt p -> Rp | VMRS Rs,FPSCR_nzcvqc BFI Rs,Rt,#29,#1 VMSR FPSCR_nzcvqc,Rs VMSR P0,Rp VPST VSBCT.I32 Qd,Qn,Qm VMRS Rt,FPSCR_nzcvqc LSR Rt,#29 AND Rt,#1 | Qd -> result Rt -> *carry | MVE |
| int8x16_t [__arm_]vsubq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VSUB.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vsubq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VSUB.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vsubq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VSUB.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vsubq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VSUB.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vsubq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VSUB.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vsubq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VSUB.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vsubq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VSUB.I8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vsubq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VSUB.I16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vsubq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VSUB.I32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vsubq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VSUB.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vsubq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VSUB.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vsubq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VSUB.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vsubq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VSUB.F16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vsubq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VSUB.F32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vsubq[_n_f16](float16x8_t a, float16_t b) | a -> Qn b -> Rm | VSUB.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vsubq[_n_f32](float32x4_t a, float32_t b) | a -> Qn b -> Rm | VSUB.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vsubq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int16x8_t [__arm_]vsubq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vsubq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vsubq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vsubq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vsubq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vsubq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vsubq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vsubq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vsubq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vsubq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vsubq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vsubq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vsubq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vsubq_m[_n_f16](float16x8_t inactive, float16x8_t a, float16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vsubq_m[_n_f32](float32x4_t inactive, float32x4_t a, float32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vsubq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vsubq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vsubq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vsubq_x[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vsubq_x[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Rm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| int32x4_t [<u>arm</u>]vsubq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [<u>arm</u>]vsubq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [<u>arm</u>]vsubq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [<u>arm</u>]vsubq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [<u>arm</u>]vsubq_x[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [<u>arm</u>]vsubq_x[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [<u>arm</u>]vsubq_x[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.I32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vsubq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.F16 Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [<u>arm</u>]vsubq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VSUBT.F32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vsubq_x[_n_f16](float16x8_t a, float16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.F16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [<u>arm</u>]vsubq_x[_n_f32](float32x4_t a, float32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VSUBT.F32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vcaddq_rot90[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCADD.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcaddq_rot90[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCADD.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE/NEON |
| int8x16_t [<u>arm</u>]vcaddq_rot90[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VCADD.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [<u>arm</u>]vcaddq_rot90[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VCADD.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int32x4_t [<u>arm</u>]vcaddq_rot90[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VCADD.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint8x16_t [<u>arm</u>]vcaddq_rot90[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VCADD.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint16x8_t [<u>arm</u>]vcaddq_rot90[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VCADD.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint32x4_t [<u>arm</u>]vcaddq_rot90[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VCADD.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vcaddq_rot270[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCADD.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcaddq_rot270[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCADD.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE/NEON |
| int8x16_t [<u>arm</u>]vcaddq_rot270[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VCADD.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [<u>arm</u>]vcaddq_rot270[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VCADD.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [<u>arm</u>]vcaddq_rot270[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VCADD.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint8x16_t [<u>arm</u>]vcaddq_rot270[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VCADD.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint16x8_t [<u>arm</u>]vcaddq_rot270[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VCADD.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint32x4_t [<u>arm</u>]vcaddq_rot270[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VCADD.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vcaddq_rot90_m[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float32x4_t [<u>arm</u>]vcaddq_rot90_m[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int8x16_t [__arm_]vcaddq_rot90_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [__arm_]vcaddq_rot90_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int32x4_t [__arm_]vcaddq_rot90_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint8x16_t [__arm_]vcaddq_rot90_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint16x8_t [__arm_]vcaddq_rot90_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint32x4_t [__arm_]vcaddq_rot90_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [__arm_]vcaddq_rot270_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float32x4_t [__arm_]vcaddq_rot270_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [__arm_]vcaddq_rot270_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [__arm_]vcaddq_rot270_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [__arm_]vcaddq_rot270_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint8x16_t [__arm_]vcaddq_rot270_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint16x8_t [__arm_]vcaddq_rot270_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint32x4_t [__arm_]vcaddq_rot270_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float16x8_t [__arm_]vcaddq_rot90_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float32x4_t [__arm_]vcaddq_rot90_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int8x16_t [__arm_]vcaddq_rot90_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [__arm_]vcaddq_rot90_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int32x4_t [__arm_]vcaddq_rot90_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint8x16_t [__arm_]vcaddq_rot90_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| uint16x8_t [__arm_]vcaddq_rot90_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#90 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| uint32x4_t [<u>arm</u>]vcaddq_rot90_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vcaddq_rot270_x[f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float32x4_t [<u>arm</u>]vcaddq_rot270_x[f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [<u>arm</u>]vcaddq_rot270_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [<u>arm</u>]vcaddq_rot270_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [<u>arm</u>]vcaddq_rot270_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint8x16_t [<u>arm</u>]vcaddq_rot270_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint16x8_t [<u>arm</u>]vcaddq_rot270_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| uint32x4_t [<u>arm</u>]vcaddq_rot270_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCADDT.I32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float16x8_t [<u>arm</u>]vcmlaq[f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F16 Qda,Qn,Qm,#0 | Qda -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcmlaq[f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F32 Qda,Qn,Qm,#0 | Qda -> result | MVE/NEON |
| float16x8_t [<u>arm</u>]vcmlaq_rot90[f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F16 Qda,Qn,Qm,#90 | Qda -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcmlaq_rot90[f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F32 Qda,Qn,Qm,#90 | Qda -> result | MVE/NEON |
| float16x8_t [<u>arm</u>]vcmlaq_rot180[f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F16 Qda,Qn,Qm,#180 | Qda -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcmlaq_rot180[f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F32 Qda,Qn,Qm,#180 | Qda -> result | MVE/NEON |
| float16x8_t [<u>arm</u>]vcmlaq_rot270[f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F16 Qda,Qn,Qm,#270 | Qda -> result | MVE/NEON |
| float32x4_t [<u>arm</u>]vcmlaq_rot270[f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VCMLA.F32 Qda,Qn,Qm,#270 | Qda -> result | MVE/NEON |
| float16x8_t [<u>arm</u>]vcmlaq_m[f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F16 Qda,Qn,Qm,#0 | Qda -> result | MVE |
| float32x4_t [<u>arm</u>]vcmlaq_m[f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F32 Qda,Qn,Qm,#0 | Qda -> result | MVE |
| float16x8_t [<u>arm</u>]vcmlaq_rot90_m[f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F16 Qda,Qn,Qm,#90 | Qda -> result | MVE |
| float32x4_t [<u>arm</u>]vcmlaq_rot90_m[f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F32 Qda,Qn,Qm,#90 | Qda -> result | MVE |
| float16x8_t [<u>arm</u>]vcmlaq_rot180_m[f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F16 Qda,Qn,Qm,#180 | Qda -> result | MVE |
| float32x4_t [<u>arm</u>]vcmlaq_rot180_m[f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F32 Qda,Qn,Qm,#180 | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| float16x8_t [__arm_]vcmlaq_rot270_m[_f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F16 Qda,Qn,Qm,#270 | Qda -> result | MVE |
| float32x4_t [__arm_]vcmlaq_rot270_m[_f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VCMLAT.F32 Qda,Qn,Qm,#270 | Qda -> result | MVE |
| float16x8_t [__arm_]vcmluq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMUL.F16 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMUL.F32 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot90[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMUL.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot90[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMUL.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot180[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMUL.F16 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot180[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMUL.F32 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot270[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VCMUL.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot270[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VCMUL.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot90_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot90_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot180_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot180_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot270_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot270_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#0 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot90_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot90_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot180_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float32x4_t [__arm_]vcmluq_rot180_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#180 | Qd -> result | MVE |
| float16x8_t [__arm_]vcmluq_rot270_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F16 Qd,Qn,Qm,#270 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| float32x4_t [__arm_]vcmlq_rot270_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VCMULT.F32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [__arm_]vqabsq[_s8](int8x16_t a) | a -> Qm | VQABS.S8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vqabsq[_s16](int16x8_t a) | a -> Qm | VQABS.S16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqabsq[_s32](int32x4_t a) | a -> Qm | VQABS.S32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqabsq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQABST.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqabsq_m[_s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQABST.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqabsq_m[_s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQABST.S32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqaddq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VQADD.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqaddq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQADD.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqaddq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQADD.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqaddq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VQADD.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqaddq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VQADD.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqaddq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VQADD.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqaddq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VQADD.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vqaddq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQADD.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqaddq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQADD.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vqaddq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VQADD.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vqaddq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VQADD.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vqaddq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VQADD.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqaddq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqaddq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqaddq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqaddq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqaddq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqaddq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQADDT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqaddq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqaddq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqaddq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.S32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| uint8x16_t [__arm_]vqaddq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqaddq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqaddq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQADDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldhq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldhq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADH.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldhq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldhxq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADHX.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldhxq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADHX.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldhxq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLADHX.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldhxq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldhxq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldhxq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLADHXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmladhq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmladhq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADH.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmladhq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmladhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmladhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmladhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHT.S32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| int8x16_t [__arm_]vqrdmladhqx[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADHX.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmladhqx[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADHX.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmladhqx[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLADHX.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmladhqx_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmladhqx_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmladhqx_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLADHXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmlahq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VQDMLAH.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlahq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VQDMLAH.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlahq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VQDMLAH.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlahq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLAHT.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlahq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLAHT.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlahq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLAHT.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlahq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLAH.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlahq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLAH.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlahq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLAH.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlahq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLAHT.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlahq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLAHT.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlahq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLAHT.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlashq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VQDMLASH.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlashq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VQDMLASH.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlashq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VQDMLASH.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlashq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLASHT.S8 Qda,Qn,Rm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|---------------|-------------------------|
| int16x8_t [__arm_]vqdmmlashq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLASHT.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqdmmlashq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQDMLASHT.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlashq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLASH.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlashq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLASH.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlashq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VQRDMLASH.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqrdmlashq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLASHT.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqrdmlashq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLASHT.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqrdmlashq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMLASHT.S32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqdmldshq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldshq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDH.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldshq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldshq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldshq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldshq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldshxq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDHX.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldshxq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDHX.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldshxq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQDMLSDHX.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmldshxq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmldshxq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmldshxq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMLSDHXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmlsdhq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmlsdhq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDH.S16 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|--------------|-------------------------|
| int32x4_t [__arm_]vqrdmlsdhq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmlsdhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmlsdhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmlsdhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmlsdhxq[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDHX.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmlsdhxq[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDHX.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmlsdhxq[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b) | inactive -> Qd a -> Qn b -> Qm | VQRDMLSDHX.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmlsdhxq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHXT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmlsdhxq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHXT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmlsdhxq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMLSDHXT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmulhq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VQDMULH.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmulhq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQDMULH.S16 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqdmulhq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQDMULH.S32 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqdmulhq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmulhq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulhq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqdmulhq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VQDMULH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmulhq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQDMULH.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqdmulhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQDMULH.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqdmulhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqdmulhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmulhq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VQRDMULH.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmulhq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQRDMULH.S16 Qd,Qn,Rm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| int32x4_t [__arm_]vqrdmulhq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQRDMULH.S32 Qd,Qn,Rm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqrdmulhq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmulhq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmulhq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqrdmulhq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VQRDMULH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmulhq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQRDMULH.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqrdmulhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQRDMULH.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqrdmulhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqrdmulhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqrdmulhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQRDMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmullbq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQDMULLB.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmullbq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQDMULLB.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmullbq_m[_n_s16](int32x4_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULLBT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmullbq_m[_n_s32](int64x2_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULLBT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmullbq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQDMULLB.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmullbq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQDMULLB.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmullbq_m[_s16](int32x4_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULLBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmullbq_m[_s32](int64x2_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULLBT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulltq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQDMULLT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmulltq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQDMULLT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulltq_m[_n_s16](int32x4_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULLTT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmulltq_m[_n_s32](int64x2_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQDMULLTT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulltq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQDMULLT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vqdmulltq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQDMULLT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqdmulltq_m[_s16](int32x4_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULLTT.S16 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| int64x2_t [__arm_]vqdmulltq_m[_s32](int64x2_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQDMULLTT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqnegq[_s8](int8x16_t a) | a -> Qm | VQNEG.S8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vqnegq[_s16](int16x8_t a) | a -> Qm | VQNEG.S16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqnegq[_s32](int32x4_t a) | a -> Qm | VQNEG.S32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqnegq_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQNEG.T.S8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqnegq_m[_s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQNEG.T.S16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqnegq_m[_s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VQNEG.T.S32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqsubq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VQSUB.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsubq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VQSUB.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqsubq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VQSUB.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqsubq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VQSUB.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqsubq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VQSUB.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqsubq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VQSUB.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqsubq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsubq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vqsubq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqsubq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqsubq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqsubq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VQSUBT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vqsubq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VQSUB.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vqsubq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VQSUB.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqsubq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VQSUB.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vqsubq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VQSUB.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vqsubq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VQSUB.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vqsubq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VQSUB.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqsubq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsubq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vqsubq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.S32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---|-------------------------|
| uint8x16_t [__arm_]vqsubq_m[u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqsubq_m[u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqsubq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VQSUBT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16x2_t [__arm_]vld2q[_s8](int8_t const * addr) | addr -> Rn | VLD20.8 {Qd - Qd2},[Rn] VLD21.8 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| int16x8x2_t [__arm_]vld2q[_s16](int16_t const * addr) | addr -> Rn | VLD20.16 {Qd - Qd2},[Rn] VLD21.16 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| int32x4x2_t [__arm_]vld2q[_s32](int32_t const * addr) | addr -> Rn | VLD20.32 {Qd - Qd2},[Rn] VLD21.32 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| uint8x16x2_t [__arm_]vld2q[_u8](uint8_t const * addr) | addr -> Rn | VLD20.8 {Qd - Qd2},[Rn] VLD21.8 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| uint16x8x2_t [__arm_]vld2q[_u16](uint16_t const * addr) | addr -> Rn | VLD20.16 {Qd - Qd2},[Rn] VLD21.16 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| uint32x4x2_t [__arm_]vld2q[_u32](uint32_t const * addr) | addr -> Rn | VLD20.32 {Qd - Qd2},[Rn] VLD21.32 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| float16x8x2_t [__arm_]vld2q[_f16](float16_t const * addr) | addr -> Rn | VLD20.16 {Qd - Qd2},[Rn] VLD21.16 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| float32x4x2_t [__arm_]vld2q[_f32](float32_t const * addr) | addr -> Rn | VLD20.32 {Qd - Qd2},[Rn] VLD21.32 {Qd - Qd2},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] | MVE |
| int8x16x4_t [__arm_]vld4q[_s8](int8_t const * addr) | addr -> Rn | VLD40.8 {Qd - Qd4},[Rn] VLD41.8 {Qd - Qd4},[Rn] VLD42.8 {Qd - Qd4},[Rn] VLD43.8 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| int16x8x4_t [__arm_]vld4q[_s16](int16_t const * addr) | addr -> Rn | VLD40.16 {Qd - Qd4},[Rn] VLD41.16 {Qd - Qd4},[Rn] VLD42.16 {Qd - Qd4},[Rn] VLD43.16 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| int32x4x4_t [__arm_]vld4q[_s32](int32_t const * addr) | addr -> Rn | VLD40.32 {Qd - Qd4},[Rn] VLD41.32 {Qd - Qd4},[Rn] VLD42.32 {Qd - Qd4},[Rn] VLD43.32 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| uint8x16x4_t [__arm_]vld4q[_u8](uint8_t const * addr) | addr -> Rn | VLD40.8 {Qd - Qd4},[Rn] VLD41.8 {Qd - Qd4},[Rn] VLD42.8 {Qd - Qd4},[Rn] VLD43.8 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|-----------------------|--|---|-------------------------|
| uint16x8x4_t [__arm_]vld4q[_u16](uint16_t const * addr) | addr -> Rn | VLD40.16 {Qd - Qd4},[Rn] VLD41.16 {Qd - Qd4},[Rn] VLD42.16 {Qd - Qd4},[Rn] VLD43.16 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| uint32x4x4_t [__arm_]vld4q[_u32](uint32_t const * addr) | addr -> Rn | VLD40.32 {Qd - Qd4},[Rn] VLD41.32 {Qd - Qd4},[Rn] VLD42.32 {Qd - Qd4},[Rn] VLD43.32 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| float16x8x4_t [__arm_]vld4q[_f16](float16_t const * addr) | addr -> Rn | VLD40.16 {Qd - Qd4},[Rn] VLD41.16 {Qd - Qd4},[Rn] VLD42.16 {Qd - Qd4},[Rn] VLD43.16 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| float32x4x4_t [__arm_]vld4q[_f32](float32_t const * addr) | addr -> Rn | VLD40.32 {Qd - Qd4},[Rn] VLD41.32 {Qd - Qd4},[Rn] VLD42.32 {Qd - Qd4},[Rn] VLD43.32 {Qd - Qd4},[Rn] | Qd -> result.val[0] Qd2 -> result.val[1] Qd3 -> result.val[2] Qd4 -> result.val[3] | MVE |
| int8x16_t [__arm_]vldrbq_s8(int8_t const * base) | base -> Rn | VLD40.8 Qd,[Rn] | Qd -> result | MVE |
| int16x8_t [__arm_]vldrbq_s16(int8_t const * base) | base -> Rn | VLD40.S16 Qd,[Rn] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrbq_s32(int8_t const * base) | base -> Rn | VLD40.S32 Qd,[Rn] | Qd -> result | MVE |
| uint8x16_t [__arm_]vldrbq_u8(uint8_t const * base) | base -> Rn | VLD40.8 Qd,[Rn] | Qd -> result | MVE |
| uint16x8_t [__arm_]vldrbq_u16(uint8_t const * base) | base -> Rn | VLD40.U16 Qd,[Rn] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrbq_u32(uint8_t const * base) | base -> Rn | VLD40.U32 Qd,[Rn] | Qd -> result | MVE |
| int8x16_t [__arm_]vldrbq_z_s8(int8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.8 Qd,[Rn] | Qd -> result | MVE |
| int16x8_t [__arm_]vldrbq_z_s16(int8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.S16 Qd,[Rn] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrbq_z_s32(int8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.S32 Qd,[Rn] | Qd -> result | MVE |
| uint8x16_t [__arm_]vldrbq_z_u8(uint8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.8 Qd,[Rn] | Qd -> result | MVE |
| uint16x8_t [__arm_]vldrbq_z_u16(uint8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.U16 Qd,[Rn] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrbq_z_u32(uint8_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.U32 Qd,[Rn] | Qd -> result | MVE |
| int16x8_t [__arm_]vldrhq_s16(int16_t const * base) | base -> Rn | VLD40.16 Qd,[Rn] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrhq_s32(int16_t const * base) | base -> Rn | VLD40.S32 Qd,[Rn] | Qd -> result | MVE |
| uint16x8_t [__arm_]vldrhq_u16(int16_t const * base) | base -> Rn | VLD40.16 Qd,[Rn] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrhq_u32(int16_t const * base) | base -> Rn | VLD40.U32 Qd,[Rn] | Qd -> result | MVE |
| float16x8_t [__arm_]vldrhq_f16(float16_t const * base) | base -> Rn | VLD40.16 Qd,[Rn] | Qd -> result | MVE |
| int16x8_t [__arm_]vldrhq_z_s16(int16_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.S16 Qd,[Rn] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrhq_z_s32(int16_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.S32 Qd,[Rn] | Qd -> result | MVE |
| uint16x8_t [__arm_]vldrhq_z_u16(int16_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.U16 Qd,[Rn] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrhq_z_u32(int16_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.U32 Qd,[Rn] | Qd -> result | MVE |
| float16x8_t [__arm_]vldrhq_z_f16(float16_t const * base, mve_pred16_t p) | base -> Rn p -> Rp | VMSR P0,Rp VPST VLD40.F16 Qd,[Rn] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrwq_s32(int32_t const * base) | base -> Rn | VLD40.32 Qd,[Rn] | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|------------------------------|-------------------------|
| <code>uint32x4_t [__arm_]vldrwq_u32(uint32_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRW.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>float32x4_t [__arm_]vldrwq_f32(float32_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRW.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>int32x4_t [__arm_]vldrwq_z_s32(int32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>uint32x4_t [__arm_]vldrwq_z_u32(uint32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>float32x4_t [__arm_]vldrwq_z_f32(float32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>int8x16_t [__arm_]vld1q[_s8](int8_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRB.8 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>int16x8_t [__arm_]vld1q[_s16](int16_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRH.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>int32x4_t [__arm_]vld1q[_s32](int32_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRW.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>uint8x16_t [__arm_]vld1q[_u8](uint8_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRB.8 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>uint16x8_t [__arm_]vld1q[_u16](uint16_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRH.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>uint32x4_t [__arm_]vld1q[_u32](uint32_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRW.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>float16x8_t [__arm_]vld1q[_f16](float16_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRH.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>float32x4_t [__arm_]vld1q[_f32](float32_t const * base)</code> | <code>base -> Rn</code> | <code>VLDRW.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE/NEON |
| <code>int8x16_t [__arm_]vld1q_z[_s8](int8_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRBT.8 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>int16x8_t [__arm_]vld1q_z[_s16](int16_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>int32x4_t [__arm_]vld1q_z[_s32](int32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>uint8x16_t [__arm_]vld1q_z[_u8](uint8_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRBT.8 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>uint16x8_t [__arm_]vld1q_z[_u16](uint16_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>uint32x4_t [__arm_]vld1q_z[_u32](uint32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>float16x8_t [__arm_]vld1q_z[_f16](float16_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.16 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>float32x4_t [__arm_]vld1q_z[_f32](float32_t const * base, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRWT.32 Qd,[Rn]</code> | <code>Qd -> result</code> | MVE |
| <code>int16x8_t [__arm_]vldrhq_gather_offset[_s16](int16_t const * base, uint16x8_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.U16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>int32x4_t [__arm_]vldrhq_gather_offset[_s32](int16_t const * base, uint32x4_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.S32 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>uint16x8_t [__arm_]vldrhq_gather_offset[_u16](uint16_t const * base, uint16x8_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.U16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>uint32x4_t [__arm_]vldrhq_gather_offset[_u32](uint16_t const * base, uint32x4_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.U32 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>float16x8_t [__arm_]vldrhq_gather_offset[_f16](float16_t const * base, uint16x8_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.F16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>int16x8_t [__arm_]vldrhq_gather_offset_z[_s16](int16_t const * base, uint16x8_t offset, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.U16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>int32x4_t [__arm_]vldrhq_gather_offset_z[_s32](int16_t const * base, uint32x4_t offset, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.S32 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>uint16x8_t [__arm_]vldrhq_gather_offset_z[_u16](uint16_t const * base, uint16x8_t offset, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.U16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>uint32x4_t [__arm_]vldrhq_gather_offset_z[_u32](uint16_t const * base, uint32x4_t offset, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.U32 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>float16x8_t [__arm_]vldrhq_gather_offset_z[_f16](float16_t const * base, uint16x8_t offset, mve_pred16_t p)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> <code>p -> Rp</code> | <code>VMSR P0,Rp</code> <code>VPST</code> <code>VLDRHT.F16 Qd,[Rn,Qm]</code> | <code>Qd -> result</code> | MVE |
| <code>int16x8_t [__arm_]vldrhq_gather_shifted_offset[_s16](int16_t const * base, uint16x8_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.U16 Qd,[Rn,Qm, UXTW #1]</code> | <code>Qd -> result</code> | MVE |
| <code>int32x4_t [__arm_]vldrhq_gather_shifted_offset[_s32](int16_t const * base, uint32x4_t offset)</code> | <code>base -> Rn</code> <code>offset -> Qm</code> | <code>VLDRH.S32 Qd,[Rn,Qm, UXTW #1]</code> | <code>Qd -> result</code> | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---------------------------------------|--|--------------|-------------------------|
| uint16x8_t [__arm_]vlrdhq_gather_shifted_offset[_u16](uint16_t const * base, uint16x8_t offset) | base -> Rn offset -> Qm | VLDRH.U16 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdhq_gather_shifted_offset[_u32](uint16_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRH.U32 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| float16x8_t [__arm_]vlrdhq_gather_shifted_offset[_f16](float16_t const * base, uint16x8_t offset) | base -> Rn offset -> Qm | VLDRH.F16 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| int16x8_t [__arm_]vlrdhq_gather_shifted_offset_z[_s16](int16_t const * base, uint16x8_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRHT.U16 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdhq_gather_shifted_offset_z[_s32](int16_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRHT.S32 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| uint16x8_t [__arm_]vlrdhq_gather_shifted_offset_z[_u16](uint16_t const * base, uint16x8_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRHT.U16 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdhq_gather_shifted_offset_z[_u32](uint16_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRHT.U32 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| float16x8_t [__arm_]vlrdhq_gather_shifted_offset_z[_f16](float16_t const * base, uint16x8_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRHT.F16 Qd,[Rn,Qm,UXTW #1] | Qd -> result | MVE |
| int8x16_t [__arm_]vlrdhq_gather_offset[_s8](int8_t const * base, uint8x16_t offset) | base -> Rn offset -> Qm | VLDRE.U8 Qd,[Rn,Qm] | Qd -> result | MVE |
| int16x8_t [__arm_]vlrdhq_gather_offset[_s16](int8_t const * base, uint16x8_t offset) | base -> Rn offset -> Qm | VLDRE.S16 Qd,[Rn,Qm] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdhq_gather_offset[_s32](int8_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.S32 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint8x16_t [__arm_]vlrdhq_gather_offset[_u8](uint8_t const * base, uint8x16_t offset) | base -> Rn offset -> Qm | VLDRE.U8 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint16x8_t [__arm_]vlrdhq_gather_offset[_u16](uint8_t const * base, uint16x8_t offset) | base -> Rn offset -> Qm | VLDRE.U16 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdhq_gather_offset[_u32](uint8_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| int8x16_t [__arm_]vlrdhq_gather_offset_z[_s8](int8_t const * base, uint8x16_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.U8 Qd,[Rn,Qm] | Qd -> result | MVE |
| int16x8_t [__arm_]vlrdhq_gather_offset_z[_s16](int8_t const * base, uint16x8_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.S16 Qd,[Rn,Qm] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdhq_gather_offset_z[_s32](int8_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.S32 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint8x16_t [__arm_]vlrdhq_gather_offset_z[_u8](uint8_t const * base, uint8x16_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.U8 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint16x8_t [__arm_]vlrdhq_gather_offset_z[_u16](uint8_t const * base, uint16x8_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.U16 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdhq_gather_offset_z[_u32](uint8_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREBT.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdwq_gather_offset[_s32](int32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdwq_gather_offset[_u32](uint32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| float32x4_t [__arm_]vlrdwq_gather_offset[_f32](float32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdwq_gather_offset_z[_s32](int32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREWT.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint32x4_t [__arm_]vlrdwq_gather_offset_z[_u32](uint32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREWT.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| float32x4_t [__arm_]vlrdwq_gather_offset_z[_f32](float32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDREWT.U32 Qd,[Rn,Qm] | Qd -> result | MVE |
| int32x4_t [__arm_]vlrdwq_gather_shifted_offset[_s32](int32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRE.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|-----------------------------|-------------------------|
| uint32x4_t [__arm_]vldrwq_gather_shifted_offset[_u32](uint32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRAW.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |
| float32x4_t [__arm_]vldrwq_gather_shifted_offset[_f32](float32_t const * base, uint32x4_t offset) | base -> Rn offset -> Qm | VLDRAW.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrwq_gather_shifted_offset_z[_s32](int32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrwq_gather_shifted_offset_z[_u32](uint32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |
| float32x4_t [__arm_]vldrwq_gather_shifted_offset_z[_f32](float32_t const * base, uint32x4_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Rn,Qm,UXTW #2] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrwq_gather_base_s32(uint32x4_t addr, const int offset) | addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrwq_gather_base_u32(uint32x4_t addr, const int offset) | addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| float32x4_t [__arm_]vldrwq_gather_base_f32(uint32x4_t addr, const int offset) | addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrwq_gather_base_z_s32(uint32x4_t addr, const int offset, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| uint32x4_t [__arm_]vldrwq_gather_base_z_u32(uint32x4_t addr, const int offset, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| float32x4_t [__arm_]vldrwq_gather_base_z_f32(uint32x4_t addr, const int offset, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset] | Qd -> result | MVE |
| int32x4_t [__arm_]vldrwq_gather_base_wb_s32(uint32x4_t * addr, const int offset) | *addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| uint32x4_t [__arm_]vldrwq_gather_base_wb_u32(uint32x4_t * addr, const int offset) | *addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| float32x4_t [__arm_]vldrwq_gather_base_wb_f32(uint32x4_t * addr, const int offset) | *addr -> Qn offset in +/- 4*[0..127] | VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| int32x4_t [__arm_]vldrwq_gather_base_wb_z_s32(uint32x4_t * addr, const int offset, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| uint32x4_t [__arm_]vldrwq_gather_base_wb_z_u32(uint32x4_t * addr, const int offset, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| float32x4_t [__arm_]vldrwq_gather_base_wb_z_f32(uint32x4_t * addr, const int offset, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRAW.U32 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| int64x2_t [__arm_]vldrdq_gather_offset[_s64](int64_t const * base, uint64x2_t offset) | base -> Rn offset -> Qm | VLDRD.U64 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_offset[_u64](uint64_t const * base, uint64x2_t offset) | base -> Rn offset -> Qm | VLDRD.U64 Qd,[Rn,Qm] | Qd -> result | MVE |
| int64x2_t [__arm_]vldrdq_gather_offset_z[_s64](int64_t const * base, uint64x2_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRT.U64 Qd,[Rn,Qm] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_offset_z[_u64](uint64_t const * base, uint64x2_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRT.U64 Qd,[Rn,Qm] | Qd -> result | MVE |
| int64x2_t [__arm_]vldrdq_gather_shifted_offset[_s64](int64_t const * base, uint64x2_t offset) | base -> Rn offset -> Qm | VLDRD.U64 Qd,[Rn,Qm,UXTW #3] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_shifted_offset[_u64](uint64_t const * base, uint64x2_t offset) | base -> Rn offset -> Qm | VLDRD.U64 Qd,[Rn,Qm,UXTW #3] | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|-----------------------------|-------------------------|
| int64x2_t [__arm_]vldrdq_gather_shifted_offset_z[_s64](int64_t const * base, uint64x2_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Rn,Qm,UCTW #3] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_shifted_offset_z[_u64](uint64_t const * base, uint64x2_t offset, mve_pred16_t p) | base -> Rn offset -> Qm p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Rn,Qm,UCTW #3] | Qd -> result | MVE |
| int64x2_t [__arm_]vldrdq_gather_base_s64(uint64x2_t addr, const int offset) | addr -> Qn offset in +/- 8*[0..127] | VLDRD.64 Qd,[Qn,#offset] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_base_u64(uint64x2_t addr, const int offset) | addr -> Qn offset in +/- 8*[0..127] | VLDRD.64 Qd,[Qn,#offset] | Qd -> result | MVE |
| int64x2_t [__arm_]vldrdq_gather_base_z_s64(uint64x2_t addr, const int offset, mve_pred16_t p) | addr -> Qn offset in +/- 8*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Qn,#offset] | Qd -> result | MVE |
| uint64x2_t [__arm_]vldrdq_gather_base_z_u64(uint64x2_t addr, const int offset, mve_pred16_t p) | addr -> Qn offset in +/- 8*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Qn,#offset] | Qd -> result | MVE |
| int64x2_t [__arm_]vldrdq_gather_base_wb_s64(uint64x2_t * addr, const int offset) | *addr -> Qn offset in +/- 8*[0..127] | VLDRD.64 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| uint64x2_t [__arm_]vldrdq_gather_base_wb_u64(uint64x2_t * addr, const int offset) | *addr -> Qn offset in +/- 8*[0..127] | VLDRD.64 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| int64x2_t [__arm_]vldrdq_gather_base_wb_z_s64(uint64x2_t * addr, const int offset, mve_pred16_t p) | *addr -> Qn offset in +/- 8*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| uint64x2_t [__arm_]vldrdq_gather_base_wb_z_u64(uint64x2_t * addr, const int offset, mve_pred16_t p) | *addr -> Qn offset in +/- 8*[0..127] p -> Rp | VMSR P0,Rp VPST VLDRDT.U64 Qd,[Qn,#offset]! | Qd -> result Qn -> *addr | MVE |
| void [__arm_]vst2q[_s8](int8_t * addr, int8x16x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.8 {Qd - Qd2},[Rn] VST21.8 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_s16](int16_t * addr, int16x8x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.16 {Qd - Qd2},[Rn] VST21.16 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_s32](int32_t * addr, int32x4x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.32 {Qd - Qd2},[Rn] VST21.32 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_u8](uint8_t * addr, uint8x16x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.8 {Qd - Qd2},[Rn] VST21.8 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_u16](uint16_t * addr, uint16x8x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.16 {Qd - Qd2},[Rn] VST21.16 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_u32](uint32_t * addr, uint32x4x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.32 {Qd - Qd2},[Rn] VST21.32 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_f16](float16_t * addr, float16x8x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.16 {Qd - Qd2},[Rn] VST21.16 {Qd - Qd2},[Rn] | void -> result | MVE |
| void [__arm_]vst2q[_f32](float32_t * addr, float32x4x2_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 | VST20.32 {Qd - Qd2},[Rn] VST21.32 {Qd - Qd2},[Rn] | void -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------|-------------------------|
| void [__arm_]vst4q[_s8](int8_t * addr, int8x16x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.8 {Qd - Qd4},[Rn] VST41.8 {Qd - Qd4},[Rn] VST42.8 {Qd - Qd4},[Rn] VST43.8 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_s16](int16_t * addr, int16x8x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.16 {Qd - Qd4},[Rn] VST41.16 {Qd - Qd4},[Rn] VST42.16 {Qd - Qd4},[Rn] VST43.16 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_s32](int32_t * addr, int32x4x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.32 {Qd - Qd4},[Rn] VST41.32 {Qd - Qd4},[Rn] VST42.32 {Qd - Qd4},[Rn] VST43.32 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_u8](uint8_t * addr, uint8x16x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.8 {Qd - Qd4},[Rn] VST41.8 {Qd - Qd4},[Rn] VST42.8 {Qd - Qd4},[Rn] VST43.8 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_u16](uint16_t * addr, uint16x8x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.16 {Qd - Qd4},[Rn] VST41.16 {Qd - Qd4},[Rn] VST42.16 {Qd - Qd4},[Rn] VST43.16 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_u32](uint32_t * addr, uint32x4x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.32 {Qd - Qd4},[Rn] VST41.32 {Qd - Qd4},[Rn] VST42.32 {Qd - Qd4},[Rn] VST43.32 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_f16](float16_t * addr, float16x8x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.16 {Qd - Qd4},[Rn] VST41.16 {Qd - Qd4},[Rn] VST42.16 {Qd - Qd4},[Rn] VST43.16 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vst4q[_f32](float32_t * addr, float32x4x4_t value) | addr -> Rn value.val[0] -> Qd value.val[1] -> Qd2 value.val[2] -> Qd3 value.val[3] -> Qd4 | VST40.32 {Qd - Qd4},[Rn] VST41.32 {Qd - Qd4},[Rn] VST42.32 {Qd - Qd4},[Rn] VST43.32 {Qd - Qd4},[Rn] | void -> result | MVE |
| void [__arm_]vstrbq[_s8](int8_t * base, int8x16_t value) | base -> Rn value -> Qd | VSTRB.8 Qd,[Rn] | void -> result | MVE |
| void [__arm_]vstrbq[_s16](int8_t * base, int16x8_t value) | base -> Rn value -> Qd | VSTRB.16 Qd,[Rn] | void -> result | MVE |
| void [__arm_]vstrbq[_s32](int8_t * base, int32x4_t value) | base -> Rn value -> Qd | VSTRB.32 Qd,[Rn] | void -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--------------------------------------|---|----------------|-------------------------|
| void [<u>__arm__</u>]vstrbq[_u8](uint8_t * base, uint8x16_t value) | base -> Rn value -> Qd | VSTRB.8 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq[_u16](uint8_t * base, uint16x8_t value) | base -> Rn value -> Qd | VSTRB.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq[_u32](uint8_t * base, uint32x4_t value) | base -> Rn value -> Qd | VSTRB.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_s8](int8_t * base, int8x16_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_s16](int8_t * base, int16x8_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_s32](int8_t * base, int32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_u8](uint8_t * base, uint8x16_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_u16](uint8_t * base, uint16x8_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrbq_p[_u32](uint8_t * base, uint32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq[_s16](int16_t * base, int16x8_t value) | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq[_s32](int16_t * base, int32x4_t value) | base -> Rn value -> Qd | VSTRH.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq[_u16](uint16_t * base, uint16x8_t value) | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq[_u32](uint16_t * base, uint32x4_t value) | base -> Rn value -> Qd | VSTRH.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq[_f16](float16_t * base, float16x8_t value) | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq_p[_s16](int16_t * base, int16x8_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq_p[_s32](int16_t * base, int32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq_p[_u16](uint16_t * base, uint16x8_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq_p[_u32](uint16_t * base, uint32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrhq_p[_f16](float16_t * base, float16x8_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq[_s32](int32_t * base, int32x4_t value) | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq[_u32](uint32_t * base, uint32x4_t value) | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq[_f32](float32_t * base, float32x4_t value) | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq_p[_s32](int32_t * base, int32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq_p[_u32](uint32_t * base, uint32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vstrwq_p[_f32](float32_t * base, float32x4_t value, mve_pred16_t p) | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| void [<u>__arm__</u>]vst1q[_s8](int8_t * base, int8x16_t value) | base -> Rn value -> Qd | VSTRB.8 Qd,[Rn] | void -> result | MVE/NEON |
| void [<u>__arm__</u>]vst1q[_s16](int16_t * base, int16x8_t value) | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE/NEON |
| void [<u>__arm__</u>]vst1q[_s32](int32_t * base, int32x4_t value) | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE/NEON |
| void [<u>__arm__</u>]vst1q[_u8](uint8_t * base, uint8x16_t value) | base -> Rn value -> Qd | VSTRB.8 Qd,[Rn] | void -> result | MVE/NEON |
| void [<u>__arm__</u>]vst1q[_u16](uint16_t * base, uint16x8_t value) | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE/NEON |
| void [<u>__arm__</u>]vst1q[_u32](uint32_t * base, uint32x4_t value) | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|--|----------------|-------------------------|
| <code>void __arm__vst1q[_f16](float16_t * base, float16x8_t value)</code> | base -> Rn value -> Qd | VSTRH.16 Qd,[Rn] | void -> result | MVE/NEON |
| <code>void __arm__vst1q[_f32](float32_t * base, float32x4_t value)</code> | base -> Rn value -> Qd | VSTRW.32 Qd,[Rn] | void -> result | MVE/NEON |
| <code>void __arm__vst1q_p[_s8](int8_t * base, int8x16_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_s16](int16_t * base, int16x8_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_s32](int32_t * base, int32x4_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_u8](uint8_t * base, uint8x16_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_u16](uint16_t * base, uint16x8_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_u32](uint32_t * base, uint32x4_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_f16](float16_t * base, float16x8_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vst1q_p[_f32](float32_t * base, float32x4_t value, mve_pred16_t p)</code> | base -> Rn value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_s8](int8_t * base, uint8x16_t offset, int8x16_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.8 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_s16](int8_t * base, uint16x8_t offset, int16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.16 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_s32](int8_t * base, uint32x4_t offset, int32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.32 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_u8](uint8_t * base, uint8x16_t offset, uint8x16_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.8 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_u16](uint8_t * base, uint16x8_t offset, uint16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.16 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset[_u32](uint8_t * base, uint32x4_t offset, uint32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRB.32 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_s8](int8_t * base, uint8x16_t offset, int8x16_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_s16](int8_t * base, uint16x8_t offset, int16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.16 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_s32](int8_t * base, uint32x4_t offset, int32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.32 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_u8](uint8_t * base, uint8x16_t offset, uint8x16_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.8 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_u16](uint8_t * base, uint16x8_t offset, uint16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.16 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrbq_scatter_offset_p[_u32](uint8_t * base, uint32x4_t offset, uint32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRBT.32 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrhq_scatter_offset[_s16](int16_t * base, uint16x8_t offset, int16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm] | void -> result | MVE |
| <code>void __arm__vstrhq_scatter_offset[_s32](int16_t * base, uint32x4_t offset, int32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.32 Qd,[Rn,Qm] | void -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------|-------------------------|
| void <code>[__arm_]vstrhq_scatter_offset[_u16](uint16_t * base, uint16x8_t offset, uint16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset[_u32](uint16_t * base, uint32x4_t offset, uint32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.32 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset[_f16](float16_t * base, uint16x8_t offset, float16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset_p[_s16](int16_t * base, uint16x8_t offset, int16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset_p[_s32](int16_t * base, uint32x4_t offset, int32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset_p[_u16](uint16_t * base, uint16x8_t offset, uint16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset_p[_u32](uint16_t * base, uint32x4_t offset, uint32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_offset_p[_f16](float16_t * base, uint16x8_t offset, float16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset[_s16](int16_t * base, uint16x8_t offset, int16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset[_s32](int16_t * base, uint32x4_t offset, int32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.32 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset[_u16](uint16_t * base, uint16x8_t offset, uint16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset[_u32](uint16_t * base, uint32x4_t offset, uint32x4_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.32 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset[_f16](float16_t * base, uint16x8_t offset, float16x8_t value)</code> | base -> Rn offset -> Qm value -> Qd | VSTRH.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset_p[_s16](int16_t * base, uint16x8_t offset, int16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset_p[_s32](int16_t * base, uint32x4_t offset, int32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset_p[_u16](uint16_t * base, uint16x8_t offset, uint16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset_p[_u32](uint16_t * base, uint32x4_t offset, uint32x4_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.32 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrhq_scatter_shifted_offset_p[_f16](float16_t * base, uint16x8_t offset, float16x8_t value, mve_pred16_t p)</code> | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRHT.16 Qd,[Rn,Qm,UXTW #1] | void -> result | MVE |
| void <code>[__arm_]vstrwq_scatter_base[_s32](uint32x4_t addr, const int offset, int32x4_t value)</code> | addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset] | void -> result | MVE |
| void <code>[__arm_]vstrwq_scatter_base[_u32](uint32x4_t addr, const int offset, uint32x4_t value)</code> | addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset] | void -> result | MVE |
| void <code>[__arm_]vstrwq_scatter_base[_f32](uint32x4_t addr, const int offset, float32x4_t value)</code> | addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset] | void -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------|-------------------------|
| void [<u>__arm_</u>]vstrwq_scatter_base_p[_s32](uint32x4_t addr, const int offset, int32x4_t value, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_p[_u32](uint32x4_t addr, const int offset, uint32x4_t value, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_p[_f32](uint32x4_t addr, const int offset, float32x4_t value, mve_pred16_t p) | addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb[_s32](uint32x4_t * addr, const int offset, int32x4_t value) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb[_u32](uint32x4_t * addr, const int offset, uint32x4_t value) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb[_f32](uint32x4_t * addr, const int offset, float32x4_t value) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd | VSTRW.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb_p[_s32](uint32x4_t * addr, const int offset, int32x4_t value, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb_p[_u32](uint32x4_t * addr, const int offset, uint32x4_t value, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_base_wb_p[_f32](uint32x4_t * addr, const int offset, float32x4_t value, mve_pred16_t p) | *addr -> Qn offset in +/- 4*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.U32 Qd,[Qn,#offset]! | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset[_s32](int32_t * base, uint32x4_t offset, int32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset[_u32](uint32_t * base, uint32x4_t offset, uint32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset[_f32](float32_t * base, uint32x4_t offset, float32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset_p[_s32](int32_t * base, uint32x4_t offset, int32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset_p[_u32](uint32_t * base, uint32x4_t offset, uint32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_offset_p[_f32](float32_t * base, uint32x4_t offset, float32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_shifted_offset[_s32](int32_t * base, uint32x4_t offset, int32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_shifted_offset[_u32](uint32_t * base, uint32x4_t offset, uint32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_shifted_offset[_f32](float32_t * base, uint32x4_t offset, float32x4_t value) | base -> Rn offset -> Qm value -> Qd | VSTRW.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |
| void [<u>__arm_</u>]vstrwq_scatter_shifted_offset_p[_s32](int32_t * base, uint32x4_t offset, int32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|----------------------------|-------------------------|
| void [__arm_]vstrwq_scatter_shifted_offset_p[_u32](uint32_t * base, uint32x4_t offset, uint32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |
| void [__arm_]vstrwq_scatter_shifted_offset_p[_f32](float32_t * base, uint32x4_t offset, float32x4_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRWT.32 Qd,[Rn,Qm,UCTW #2] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base[_s64](uint64x2_t addr, const int offset, int64x2_t value) | addr -> Qn offset in +/- 8*[0..127] value -> Qd | VSTRD.U64 Qd,[Qn,#offset] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base[_u64](uint64x2_t addr, const int offset, uint64x2_t value) | addr -> Qn offset in +/- 8*[0..127] value -> Qd | VSTRD.U64 Qd,[Qn,#offset] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_p[_s64](uint64x2_t addr, const int offset, int64x2_t value, mve_pred16_t p) | addr -> Qn offset in +/- 8*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.U64 Qd,[Qn,#offset] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_p[_u64](uint64x2_t addr, const int offset, uint64x2_t value, mve_pred16_t p) | addr -> Qn offset in +/- 8*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.U64 Qd,[Qn,#offset] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_wb[_s64](uint64x2_t * addr, const int offset, int64x2_t value) | *addr -> Qn offset in +/- 8*[0..127] value -> Qd | VSTRD.U64 Qd,[Qn,#offset]! | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_wb[_u64](uint64x2_t * addr, const int offset, uint64x2_t value) | *addr -> Qn offset in +/- 8*[0..127] value -> Qd | VSTRD.U64 Qd,[Qn,#offset]! | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_wb_p[_s64](uint64x2_t * addr, const int offset, int64x2_t value, mve_pred16_t p) | *addr -> Qn offset in +/- 8*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.U64 Qd,[Qn,#offset]! | void -> result | MVE |
| void [__arm_]vstrdq_scatter_base_wb_p[_u64](uint64x2_t * addr, const int offset, uint64x2_t value, mve_pred16_t p) | *addr -> Qn offset in +/- 8*[0..127] value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.U64 Qd,[Qn,#offset]! | void -> result | MVE |
| void [__arm_]vstrdq_scatter_offset[_s64](int64_t * base, uint64x2_t offset, int64x2_t value) | base -> Rn offset -> Qm value -> Qd | VSTRD.64 Qd,[Rn,Qm] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_offset[_u64](uint64_t * base, uint64x2_t offset, uint64x2_t value) | base -> Rn offset -> Qm value -> Qd | VSTRD.64 Qd,[Rn,Qm] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_offset_p[_s64](int64_t * base, uint64x2_t offset, int64x2_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.64 Qd,[Rn,Qm] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_offset_p[_u64](uint64_t * base, uint64x2_t offset, uint64x2_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.64 Qd,[Rn,Qm] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_shifted_offset[_s64](int64_t * base, uint64x2_t offset, int64x2_t value) | base -> Rn offset -> Qm value -> Qd | VSTRD.64 Qd,[Rn,Qm,UCTW #3] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_shifted_offset[_u64](uint64_t * base, uint64x2_t offset, uint64x2_t value) | base -> Rn offset -> Qm value -> Qd | VSTRD.64 Qd,[Rn,Qm,UCTW #3] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_shifted_offset_p[_s64](int64_t * base, uint64x2_t offset, int64x2_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.64 Qd,[Rn,Qm,UCTW #3] | void -> result | MVE |
| void [__arm_]vstrdq_scatter_shifted_offset_p[_u64](uint64_t * base, uint64x2_t offset, uint64x2_t value, mve_pred16_t p) | base -> Rn offset -> Qm value -> Qd p -> Rp | VMSR P0,Rp VPST VSTRDT.64 Qd,[Rn,Qm,UCTW #3] | void -> result | MVE |
| int64_t [__arm_]vaddlvaq[_s32](int64_t a, int32x4_t b) | a -> [RdaHi,RdaLo] b -> Qm | VADDLVA.S32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--|--|----------------------------|-------------------------|
| uint64_t [__arm_]vaddlvq[_u32](uint64_t a, uint32x4_t b) | a -> [RdaHi,RdaLo] b -> Qm | VADDLVA.U32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vaddlvq_p[_s32](int64_t a, int32x4_t b, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qm p -> Rp | VMSR P0,Rp VPST VADDLVAT.S32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vaddlvq_p[_u32](uint64_t a, uint32x4_t b, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qm p -> Rp | VMSR P0,Rp VPST VADDLVAT.U32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vaddlvq[_s32](int32x4_t a) | a -> Qm | VADDLV.S32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vaddlvq[_u32](uint32x4_t a) | a -> Qm | VADDLV.U32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vaddlvq_p[_s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDLVT.S32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vaddlvq_p[_u32](uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDLVT.U32 RdaLo,RdaHi,Qm | [RdaHi,RdaLo] -> result | MVE |
| int32_t [__arm_]vaddvq[_s8](int32_t a, int8x16_t b) | a -> Rda b -> Qm | VADDVA.S8 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq[_s16](int32_t a, int16x8_t b) | a -> Rda b -> Qm | VADDVA.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq[_s32](int32_t a, int32x4_t b) | a -> Rda b -> Qm | VADDVA.S32 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u8](uint32_t a, uint8x16_t b) | a -> Rda b -> Qm | VADDVA.U8 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u16](uint32_t a, uint16x8_t b) | a -> Rda b -> Qm | VADDVA.U16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u32](uint32_t a, uint32x4_t b) | a -> Rda b -> Qm | VADDVA.U32 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s8](int32_t a, int8x16_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.S8 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s16](int32_t a, int16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s32](int32_t a, int32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.S32 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq_p[_u8](uint32_t a, uint8x16_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.U8 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq_p[_u16](uint32_t a, uint16x8_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.U16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq_p[_u32](uint32_t a, uint32x4_t b, mve_pred16_t p) | a -> Rda b -> Qm p -> Rp | VMSR P0,Rp VPST VADDVAT.U32 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq[_s8](int8x16_t a) | a -> Qm | VADDV.S8 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq[_s16](int16x8_t a) | a -> Qm | VADDV.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq[_s32](int32x4_t a) | a -> Qm | VADDV.S32 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u8](uint8x16_t a) | a -> Qm | VADDV.U8 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u16](uint16x8_t a) | a -> Qm | VADDV.U16 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq[_u32](uint32x4_t a) | a -> Qm | VADDV.U32 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.S8 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.S16 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vaddvq_p[_s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.S32 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq_p[_u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.U8 Rda,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vaddvq_p[_u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.U16 Rda,Qm | Rda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|---------------|-------------------------|
| uint32_t [__arm_]vaddvq_p[_u32](uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VADDVT.U32 Rda,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq[_s8](int32_t a, int8x16_t b, int8x16_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq[_s16](int32_t a, int16x8_t b, int16x8_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq[_s32](int32_t a, int32x4_t b, int32x4_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq[_u8](uint32_t a, uint8x16_t b, uint8x16_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq[_u16](uint32_t a, uint16x8_t b, uint16x8_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq[_u32](uint32_t a, uint32x4_t b, uint32x4_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVA.U32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq_p[_s8](int32_t a, int8x16_t b, int8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq_p[_s16](int32_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaq_p[_s32](int32_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq_p[_u8](uint32_t a, uint8x16_t b, uint8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq_p[_u16](uint32_t a, uint16x8_t b, uint16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavaq_p[_u32](uint32_t a, uint32x4_t b, uint32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAT.U32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMLADAV.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLADAV.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLADAV.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VMLADAV.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMLADAV.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMLADAV.U32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq_p[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq_p[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.U8 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq_p[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.U16 Rda,Qn,Qm | Rda -> result | MVE |
| uint32_t [__arm_]vmladavq_p[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVT.U32 Rda,Qn,Qm | Rda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|-------------------------|-------------------------|
| int32_t [__arm_]vmladavaxq[_s8](int32_t a, int8x16_t b, int8x16_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVAX.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaxq[_s16](int32_t a, int16x8_t b, int16x8_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVAX.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaxq[_s32](int32_t a, int32x4_t b, int32x4_t c) | a -> Rda b -> Qn c -> Qm | VMLADAVAX.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaxq_p[_s8](int32_t a, int8x16_t b, int8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAXT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaxq_p[_s16](int32_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAXT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavaxq_p[_s32](int32_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVAXT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMLADAVX.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLADAVX.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLADAVX.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq_p[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVXT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVXT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmladavxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLADAVXT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int64_t [__arm_]vmlaldavaq[_s16](int64_t a, int16x8_t b, int16x8_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVA.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVA.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavaq_u16(uint64_t a, uint16x8_t b, uint16x8_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVA.U16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavaq_u32(uint64_t a, uint32x4_t b, uint32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVA.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaq_p[_s16](int64_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLALDAVAT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLALDAVAT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavaq_p_u16(uint64_t a, uint16x8_t b, uint16x8_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLALDAVAT.U16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavaq_p_u32(uint64_t a, uint32x4_t b, uint32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLALDAVAT.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLALDAV.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLALDAV.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|----------------------------|-------------------------|
| uint64_t [__arm_]vmlaldavq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VMLALDAV.U16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VMLALDAV.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavq_p[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVT.U16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vmlaldavq_p[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVT.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaxq[_s16](int64_t a, int16x8_t b, int16x8_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVAX.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaxq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLALDAVAX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaxq_p[_s16](int64_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVAXT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavaxq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVAXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavxq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLALDAVX.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLALDAVX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavxq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVXT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlaldavxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR.P0,Rp VPST VMLALDAVXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int8x16_t [__arm_]vmlaq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VMLA.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vmlaq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VMLA.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vmlaq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VMLA.S32 Qda,Qn,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vmlaq[_n_u8](uint8x16_t a, uint8x16_t b, uint8_t c) | a -> Qda b -> Qn c -> Rm | VMLA.U8 Qda,Qn,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmlaq[_n_u16](uint16x8_t a, uint16x8_t b, uint16_t c) | a -> Qda b -> Qn c -> Rm | VMLA.U16 Qda,Qn,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmlaq[_n_u32](uint32x4_t a, uint32x4_t b, uint32_t c) | a -> Qda b -> Qn c -> Rm | VMLA.U32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vmlaq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR.P0,Rp VPST VMLAT.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vmlaq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR.P0,Rp VPST VMLAT.S16 Qda,Qn,Rm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| int32x4_t [__arm_]vmlaq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAT.S32 Qda,Qn,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vmlaq_m[_n_u8](uint8x16_t a, uint8x16_t b, uint8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAT.U8 Qda,Qn,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmlaq_m[_n_u16](uint16x8_t a, uint16x8_t b, uint16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAT.U16 Qda,Qn,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmlaq_m[_n_u32](uint32x4_t a, uint32x4_t b, uint32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAT.U32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vmlasq[_n_s8](int8x16_t a, int8x16_t b, int8_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vmlasq[_n_s16](int16x8_t a, int16x8_t b, int16_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vmlasq[_n_s32](int32x4_t a, int32x4_t b, int32_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.S32 Qda,Qn,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vmlasq[_n_u8](uint8x16_t a, uint8x16_t b, uint8_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.U8 Qda,Qn,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmlasq[_n_u16](uint16x8_t a, uint16x8_t b, uint16_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.U16 Qda,Qn,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmlasq[_n_u32](uint32x4_t a, uint32x4_t b, uint32_t c) | a -> Qda b -> Qn c -> Rm | VMLAS.U32 Qda,Qn,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vmlasq_m[_n_s8](int8x16_t a, int8x16_t b, int8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.S8 Qda,Qn,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vmlasq_m[_n_s16](int16x8_t a, int16x8_t b, int16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.S16 Qda,Qn,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vmlasq_m[_n_s32](int32x4_t a, int32x4_t b, int32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.S32 Qda,Qn,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vmlasq_m[_n_u8](uint8x16_t a, uint8x16_t b, uint8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.U8 Qda,Qn,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vmlasq_m[_n_u16](uint16x8_t a, uint16x8_t b, uint16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.U16 Qda,Qn,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vmlasq_m[_n_u32](uint32x4_t a, uint32x4_t b, uint32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VMLAST.U32 Qda,Qn,Rm | Qda -> result | MVE |
| int32_t [__arm_]vmlsdavaq[_s8](int32_t a, int8x16_t b, int8x16_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVA.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavaq[_s16](int32_t a, int16x8_t b, int16x8_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVA.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavaq[_s32](int32_t a, int32x4_t b, int32x4_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVA.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavaq_p[_s8](int32_t a, int8x16_t b, int8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavaq_p[_s16](int32_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAT.S16 Rda,Qn,Qm | Rda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|-------------------------|-------------------------|
| int32_t [__arm_]vmlsdavq_p[_s32](int32_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMLSDAV.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLSDAV.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLSDAV.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq_p[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s8](int32_t a, int8x16_t b, int8x16_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVAX.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s16](int32_t a, int16x8_t b, int16x8_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVAX.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s32](int32_t a, int32x4_t b, int32x4_t c) | a -> Rda b -> Qn c -> Qm | VMLSDAVAX.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s8](int32_t a, int8x16_t b, int8x16_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAXT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s16](int32_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAXT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s32](int32_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> Rda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVAXT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VMLSDAVX.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLSDAVX.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLSDAVX.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVXT.S8 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVXT.S16 Rda,Qn,Qm | Rda -> result | MVE |
| int32_t [__arm_]vmlsdavxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMLSDAVXT.S32 Rda,Qn,Qm | Rda -> result | MVE |
| int64_t [__arm_]vmlslavaq[_s16](int64_t a, int16x8_t b, int16x8_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLSLDAVA.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlslavaq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMLSLDAVA.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlslavaq_p[_s16](int64_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSLDAVAT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlslavaq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMLSLDAVAT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlslavq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMLSLDAV.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlslavq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMLSLDAV.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|----------------------------|-------------------------|
| int64_t [__arm_]vmlsldavq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavaxq[_s16](int64_t a, int16x8_t b, int16x8_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMSLDAVAX.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavaxq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VMSLDAVAX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavaxq_p[_s16](int64_t a, int16x8_t b, int16x8_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVAXT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavaxq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVAXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavxq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VMSLDAVX.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VMSLDAVX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavxq_p[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVXT.S16 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vmlsldavxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VMSLDAVXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int8x16_t [__arm_]vhaddq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VHADD.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhaddq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VHADD.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhaddq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VHADD.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhaddq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VHADD.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhaddq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VHADD.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhaddq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VHADD.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhaddq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VHADD.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vhaddq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VHADD.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vhaddq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VHADD.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vhaddq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VHADD.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vhaddq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VHADD.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vhaddq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VHADD.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vhaddq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhaddq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhaddq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S32 Qd,Qn,Rm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| uint8x16_t [__arm_]vhaddq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhaddq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhaddq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhaddq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vhaddq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vhaddq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhaddq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhaddq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhaddq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vhaddq_x[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhaddq_x[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhaddq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhaddq_x[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhaddq_x[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhaddq_x[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHADDT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhaddq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vhaddq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vhaddq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhaddq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhaddq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhaddq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHADDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot90[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VHCADD.S8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot90[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VHCADD.S16 Qd,Qn,Qm,#90 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| int32x4_t [__arm_]vhcaddq_rot90[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VHCADD.S32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot90_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot90_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int32x4_t [__arm_]vhcaddq_rot90_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot90_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S8 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot90_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S16 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int32x4_t [__arm_]vhcaddq_rot90_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S32 Qd,Qn,Qm,#90 | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot270[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VHCADD.S8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot270[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VHCADD.S16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [__arm_]vhcaddq_rot270[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VHCADD.S32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot270_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot270_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [__arm_]vhcaddq_rot270_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [__arm_]vhcaddq_rot270_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S8 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int16x8_t [__arm_]vhcaddq_rot270_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S16 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int32x4_t [__arm_]vhcaddq_rot270_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMRSR P0,Rp VPST VHCADDT.S32 Qd,Qn,Qm,#270 | Qd -> result | MVE |
| int8x16_t [__arm_]vhsbq[_n_s8](int8x16_t a, int8_t b) | a -> Qn b -> Rm | VHSUB.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhsbq[_n_s16](int16x8_t a, int16_t b) | a -> Qn b -> Rm | VHSUB.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhsbq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VHSUB.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhsbq[_n_u8](uint8x16_t a, uint8_t b) | a -> Qn b -> Rm | VHSUB.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhsbq[_n_u16](uint16x8_t a, uint16_t b) | a -> Qn b -> Rm | VHSUB.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhsbq[_n_u32](uint32x4_t a, uint32_t b) | a -> Qn b -> Rm | VHSUB.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhsbq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VHSUB.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vhsbq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VHSUB.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vhsbq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VHSUB.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vhsbq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VHSUB.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vhsbq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VHSUB.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vhsbq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VHSUB.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|--------------|-------------------------|
| int8x16_t [__arm_]vhsbq_m[_n_s8](int8x16_t inactive, int8x16_t a, int8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhsbq_m[_n_s16](int16x8_t inactive, int16x8_t a, int16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhsbq_m[_n_s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhsbq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, uint8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhsbq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, uint16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhsbq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, uint32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhsbq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vhsbq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vhsbq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhsbq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhsbq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhsbq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vhsbq_x[_n_s8](int8x16_t a, int8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vhsbq_x[_n_s16](int16x8_t a, int16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vhsbq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.S32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vhsbq_x[_n_u8](uint8x16_t a, uint8_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhsbq_x[_n_u16](uint16x8_t a, uint16_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhsbq_x[_n_u32](uint32x4_t a, uint32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VHSUBT.U32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vhsbq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vhsbq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vhsbq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.S32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|---------------|-------------------------|
| uint8x16_t [__arm_]vhsbq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vhsbq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vhsbq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VHSUBT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrhaddq[s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VRHADD.S8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vrhaddq[s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VRHADD.S16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vrhaddq[s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRHADD.S32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrhaddq[u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VRHADD.U8 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vrhaddq[u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VRHADD.U16 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vrhaddq[u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VRHADD.U32 Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vrhaddq_m[s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrhaddq_m[s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrhaddq_m[s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrhaddq_m[u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrhaddq_m[u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrhaddq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrhaddq_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrhaddq_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrhaddq_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrhaddq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrhaddq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrhaddq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRHADDT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vfmaq[_n_f16](float16x8_t a, float16x8_t b, float16_t c) | a -> Qda b -> Qn c -> Rm | VFMA.F16 Qda,Qn,Rm | Qda -> result | MVE/NEON |
| float32x4_t [__arm_]vfmaq[_n_f32](float32x4_t a, float32x4_t b, float32_t c) | a -> Qda b -> Qn c -> Rm | VFMA.F32 Qda,Qn,Rm | Qda -> result | MVE/NEON |
| float16x8_t [__arm_]vfmaq_m[_n_f16](float16x8_t a, float16x8_t b, float16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VFMAT.F16 Qda,Qn,Rm | Qda -> result | MVE |
| float32x4_t [__arm_]vfmaq_m[_n_f32](float32x4_t a, float32x4_t b, float32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VFMAT.F32 Qda,Qn,Rm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------------------|-------------------------|
| float16x8_t [__arm_]vfmagq[_f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VFMA.F16 Qda,Qn,Qm | Qda -> result | MVE/NEON |
| float32x4_t [__arm_]vfmagq[_f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VFMA.F32 Qda,Qn,Qm | Qda -> result | MVE/NEON |
| float16x8_t [__arm_]vfmagq_m[_f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VFMA.F16 Qda,Qn,Qm | Qda -> result | MVE |
| float32x4_t [__arm_]vfmagq_m[_f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VFMA.F32 Qda,Qn,Qm | Qda -> result | MVE |
| float16x8_t [__arm_]vfmagq[_n_f16](float16x8_t a, float16x8_t b, float16_t c) | a -> Qda b -> Qn c -> Rm | VFMA.F16 Qda,Qn,Rm | Qda -> result | MVE |
| float32x4_t [__arm_]vfmagq[_n_f32](float32x4_t a, float32x4_t b, float32_t c) | a -> Qda b -> Qn c -> Rm | VFMA.F32 Qda,Qn,Rm | Qda -> result | MVE |
| float16x8_t [__arm_]vfmagq_m[_n_f16](float16x8_t a, float16x8_t b, float16_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VFMA.F16 Qda,Qn,Rm | Qda -> result | MVE |
| float32x4_t [__arm_]vfmagq_m[_n_f32](float32x4_t a, float32x4_t b, float32_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Rm p -> Rp | VMSR P0,Rp VPST VFMA.F32 Qda,Qn,Rm | Qda -> result | MVE |
| float16x8_t [__arm_]vfmagq[_f16](float16x8_t a, float16x8_t b, float16x8_t c) | a -> Qda b -> Qn c -> Qm | VFMS.F16 Qda,Qn,Qm | Qda -> result | MVE/NEON |
| float32x4_t [__arm_]vfmagq[_f32](float32x4_t a, float32x4_t b, float32x4_t c) | a -> Qda b -> Qn c -> Qm | VFMS.F32 Qda,Qn,Qm | Qda -> result | MVE/NEON |
| float16x8_t [__arm_]vfmagq_m[_f16](float16x8_t a, float16x8_t b, float16x8_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VFMS.F16 Qda,Qn,Qm | Qda -> result | MVE |
| float32x4_t [__arm_]vfmagq_m[_f32](float32x4_t a, float32x4_t b, float32x4_t c, mve_pred16_t p) | a -> Qda b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VFMS.F32 Qda,Qn,Qm | Qda -> result | MVE |
| int64_t [__arm_]vrmlaldavhaq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VRMLALDAVHA.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vrmlaldavhaq[_u32](uint64_t a, uint32x4_t b, uint32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VRMLALDAVHA.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhaq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVHA.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vrmlaldavhaq_p[_u32](uint64_t a, uint32x4_t b, uint32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVHA.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRMLALDAVH.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vrmlaldavhq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VRMLALDAVH.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVH.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]vrmlaldavhq_p[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVH.U32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhaxq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VRMLALDAVHAX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|----------------------------|-------------------------|
| int64_t [__arm_]vrmlaldavhaxq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVHAXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRMLALDAVHX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlaldavhaxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMLALDAVHXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhaq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VRMLSLDAVHA.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhaq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VRMLSLDAVHAT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRMLSLDAVH.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMLSLDAVHT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhaxq[_s32](int64_t a, int32x4_t b, int32x4_t c) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm | VRMLSLDAVHAX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhaxq_p[_s32](int64_t a, int32x4_t b, int32x4_t c, mve_pred16_t p) | a -> [RdaHi,RdaLo] b -> Qn c -> Qm p -> Rp | VMSR P0,Rp VPST VRMLSLDAVHAXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhxq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRMLSLDAVHX.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]vrmlsldavhxq_p[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMLSLDAVHXT.S32 RdaLo,RdaHi,Qn,Qm | [RdaHi,RdaLo] -> result | MVE |
| int8x16_t [__arm_]vrmluhq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VRMULH.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrmluhq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VRMULH.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrmluhq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VRMULH.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrmluhq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VRMULH.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrmluhq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VRMULH.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrmluhq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VRMULH.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrmluhq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrmluhq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrmluhq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrmluhq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrmluhq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrmluhq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U32 Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--------------------------------------|--|--------------|-------------------------|
| int8x16_t [__arm_]vrmulhq_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S8 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrmulhq_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S16 Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrmulhq_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.S32 Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrmulhq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U8 Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrmulhq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U16 Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrmulhq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VRMULHT.U32 Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtaq_s16_f16(float16x8_t a) | a -> Qm | VCVTA.S16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtaq_s32_f32(float32x4_t a) | a -> Qm | VCVTA.S32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vcvtaq_u16_f16(float16x8_t a) | a -> Qm | VCVTA.U16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtaq_u32_f32(float32x4_t a) | a -> Qm | VCVTA.U32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtaq_m[s16_f16](int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtaq_m[s32_f32](int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtaq_m[u16_f16](uint16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtaq_m[u32_f32](uint32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtaq_x_s16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtaq_x_s32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtaq_x_u16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtaq_x_u32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTAT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtng_s16_f16(float16x8_t a) | a -> Qm | VCVTN.S16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtng_s32_f32(float32x4_t a) | a -> Qm | VCVTN.S32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vcvtng_u16_f16(float16x8_t a) | a -> Qm | VCVTN.U16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtng_u32_f32(float32x4_t a) | a -> Qm | VCVTN.U32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtng_m[s16_f16](int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtng_m[s32_f32](int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtng_m[u16_f16](uint16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtng_m[u32_f32](uint32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtng_x_s16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtng_x_s32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtng_x_u16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtng_x_u32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTNT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtqp_s16_f16(float16x8_t a) | a -> Qm | VCVTP.S16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtqp_s32_f32(float32x4_t a) | a -> Qm | VCVTP.S32.F32 Qd,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--------------------------------------|--|--------------|-------------------------|
| uint16x8_t [__arm_]vcvtpq_u16_f16(float16x8_t a) | a -> Qm | VCVTP.U16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtpq_u32_f32(float32x4_t a) | a -> Qm | VCVTP.U32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtpq_m_s16_f16(int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtpq_m_s32_f32(int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtpq_m_u16_f16(uint16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtpq_m_u32_f32(uint32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtpq_x_s16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtpq_x_s32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtpq_x_u16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtpq_x_u32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTPT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtmq_s16_f16(float16x8_t a) | a -> Qm | VCVTM.S16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtmq_s32_f32(float32x4_t a) | a -> Qm | VCVTM.S32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vcvtmq_u16_f16(float16x8_t a) | a -> Qm | VCVTM.U16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtmq_u32_f32(float32x4_t a) | a -> Qm | VCVTM.U32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtmq_m_s16_f16(int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtmq_m_s32_f32(int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtmq_m_u16_f16(uint16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtmq_m_u32_f32(uint32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtmq_x_s16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtmq_x_s32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtmq_x_u16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtmq_x_u32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTMT.U32.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vcvtbq_f16_f32(float16x8_t a, float32x4_t b) | a -> Qd b -> Qm | VCVTB.F16.F32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vcvtbq_f32_f16(float16x8_t a) | a -> Qm | VCVTB.F32.F16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vcvtbq_m_f16_f32(float16x8_t a, float32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VCVTBT.F16.F32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vcvtbq_m_f32_f16(float32x4_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTBT.F32.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vcvtbq_x_f32_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTBT.F32.F16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vcvttq_f16_f32(float16x8_t a, float32x4_t b) | a -> Qd b -> Qm | VCVTT.F16.F32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vcvttq_f32_f16(float16x8_t a) | a -> Qm | VCVTT.F32.F16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vcvttq_m_f16_f32(float16x8_t a, float32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VCVTTT.F16.F32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vcvttq_m_f32_f16(float32x4_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTTT.F32.F16 Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| float32x4_t [<u>arm_</u>]vcvtq_x_f32_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTTT.F32.F16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_f16_s16(int16x8_t a) | a -> Qm | VCVT.F16.S16 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [<u>arm_</u>]vcvtq_f16_u16(uint16x8_t a) | a -> Qm | VCVT.F16.U16 Qd,Qm | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm_</u>]vcvtq_f32_s32(int32x4_t a) | a -> Qm | VCVT.F32.S32 Qd,Qm | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm_</u>]vcvtq_f32_u32(uint32x4_t a) | a -> Qm | VCVT.F32.U32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [<u>arm_</u>]vcvtq_m_f16_s16(float16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F16.S16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_m_f16_u16(float16x8_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F16.U16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_m_f32_s32(float32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F32.S32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_m_f32_u32(float32x4_t inactive, uint32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F32.U32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_x_f16_u16(uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F16.U16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_x_f16_s16(int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F16.S16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_x_f32_s32(int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F32.S32 Qd,Qm | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_x_f32_u32(uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.F32.U32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_n_f16_s16(int16x8_t a, const int imm6) | a -> Qm 1 <= imm6 <= 16 | VCVT.F16.S16 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| float16x8_t [<u>arm_</u>]vcvtq_n_f16_u16(uint16x8_t a, const int imm6) | a -> Qm 1 <= imm6 <= 16 | VCVT.F16.U16 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm_</u>]vcvtq_n_f32_s32(int32x4_t a, const int imm6) | a -> Qm 1 <= imm6 <= 32 | VCVT.F32.S32 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| float32x4_t [<u>arm_</u>]vcvtq_n_f32_u32(uint32x4_t a, const int imm6) | a -> Qm 1 <= imm6 <= 32 | VCVT.F32.U32 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| float16x8_t [<u>arm_</u>]vcvtq_m_n_f16_s16(float16x8_t inactive, int16x8_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.F16.S16 Qd,Qm,imm6 | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_m_n_f16_u16(float16x8_t inactive, uint16x8_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.F16.U16 Qd,Qm,imm6 | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_m_n_f32_s32(float32x4_t inactive, int32x4_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.F32.S32 Qd,Qm,imm6 | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_m_n_f32_u32(float32x4_t inactive, uint32x4_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.F32.U32 Qd,Qm,imm6 | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_x_n_f16_s16(int16x8_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.F16.S16 Qd,Qm,imm6 | Qd -> result | MVE |
| float16x8_t [<u>arm_</u>]vcvtq_x_n_f16_u16(uint16x8_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.F16.U16 Qd,Qm,imm6 | Qd -> result | MVE |
| float32x4_t [<u>arm_</u>]vcvtq_x_n_f32_s32(int32x4_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.F32.S32 Qd,Qm,imm6 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|--------------|-------------------------|
| float32x4_t [__arm_]vcvtq_x_n_f32_u32(uint32x4_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.F32.U32 Qd,Qm,imm6 | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtq_s16_f16(float16x8_t a) | a -> Qm | VCVT.S16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtq_s32_f32(float32x4_t a) | a -> Qm | VCVT.S32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vcvtq_u16_f16(float16x8_t a) | a -> Qm | VCVT.U16.F16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtq_u32_f32(float32x4_t a) | a -> Qm | VCVT.U32.F32 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtq_m_s16_f16(int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtq_m_s32_f32(int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtq_m_u16_f16(int16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtq_m_u32_f32(int32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtq_x_s16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.S16.F16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtq_x_s32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.S32.F32 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtq_x_u16_f16(float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.U16.F16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtq_x_u32_f32(float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VCVTT.U32.F32 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtq_n_s16_f16(float16x8_t a, const int imm6) | a -> Qm 1 <= imm6 <= 16 | VCVT.S16.F16 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vcvtq_n_s32_f32(float32x4_t a, const int imm6) | a -> Qm 1 <= imm6 <= 32 | VCVT.S32.F32 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vcvtq_n_u16_f16(float16x8_t a, const int imm6) | a -> Qm 1 <= imm6 <= 16 | VCVT.U16.F16 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vcvtq_n_u32_f32(float32x4_t a, const int imm6) | a -> Qm 1 <= imm6 <= 32 | VCVT.U32.F32 Qd,Qm,imm6 | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vcvtq_m_n_s16_f16(int16x8_t inactive, float16x8_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.S16.F16 Qd,Qm,imm6 | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtq_m_n_s32_f32(int32x4_t inactive, float32x4_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.S32.F32 Qd,Qm,imm6 | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtq_m_n_u16_f16(int16x8_t inactive, float16x8_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.U16.F16 Qd,Qm,imm6 | Qd -> result | MVE |
| uint32x4_t [__arm_]vcvtq_m_n_u32_f32(int32x4_t inactive, float32x4_t a, const int imm6, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.U32.F32 Qd,Qm,imm6 | Qd -> result | MVE |
| int16x8_t [__arm_]vcvtq_x_n_s16_f16(float16x8_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.S16.F16 Qd,Qm,imm6 | Qd -> result | MVE |
| int32x4_t [__arm_]vcvtq_x_n_s32_f32(float32x4_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.S32.F32 Qd,Qm,imm6 | Qd -> result | MVE |
| uint16x8_t [__arm_]vcvtq_x_n_u16_f16(float16x8_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 16 p -> Rp | VMSR P0,Rp VPST VCVTT.U16.F16 Qd,Qm,imm6 | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---------------------------------------|--|--------------|-------------------------|
| uint32x4_t [__arm_]vcvtq_x_n_u32_f32(float32x4_t a, const int imm6, mve_pred16_t p) | a -> Qm 1 <= imm6 <= 32 p -> Rp | VMSR P0,Rp VPST VCVTT.U32.F32 Qd,Qm,imm6 | Qd -> result | MVE |
| float16x8_t [__arm_]vrndq[_f16](float16x8_t a) | a -> Qm | VRINTZ.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq[_f32](float32x4_t a) | a -> Qm | VRINTZ.F32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrndq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTZT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTZT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTZT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTZT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndq[_f16](float16x8_t a) | a -> Qm | VRINTN.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq[_f32](float32x4_t a) | a -> Qm | VRINTN.F32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrndq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTNT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTNT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTNT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTNT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndmq[_f16](float16x8_t a) | a -> Qm | VRINTM.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndmq[_f32](float32x4_t a) | a -> Qm | VRINTM.F32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrndmq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTMT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndmq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTMT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndmq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTMT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndmq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTMT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndpq[_f16](float16x8_t a) | a -> Qm | VRINTP.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndpq[_f32](float32x4_t a) | a -> Qm | VRINTP.F32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrndpq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTPT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndpq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTPT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndpq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTPT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndpq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTPT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndaq[_f16](float16x8_t a) | a -> Qm | VRINTA.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndaq[_f32](float32x4_t a) | a -> Qm | VRINTA.F32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrndaq_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTAT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndaq_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTAT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndaq_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTAT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndaq_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTAT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndxq[_f16](float16x8_t a) | a -> Qm | VRINTX.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndxq[_f32](float32x4_t a) | a -> Qm | VRINTX.F32 Qd,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|--------------|-------------------------|
| float16x8_t [__arm_]vrndqx_m[_f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTXT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndqx_m[_f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTXT.F32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrndqx_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTXT.F16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrndqx_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VRINTXT.F32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vandq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vandq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vandq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vandq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vandq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vandq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vandq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vandq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VAND Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vandq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vandq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vandq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vandq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vandq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vandq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vandq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vandq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vandq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vandq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vandq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vandq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vandq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--------------------------------------|--------------|-------------------------|
| uint32x4_t [__arm_]vandq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vandq_x[f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vandq_x[f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VANDT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vbicq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vbicq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vbicq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vbicq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vbicq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vbicq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vbicq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vbicq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VBIC Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vbicq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vbicq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vbicq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vbicq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vbicq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vbicq_m[_u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vbicq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vbicq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vbicq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vbicq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vbicq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vbicq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vbicq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vbicq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| float16x8_t [__arm_]vbicq_x[f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vbicq_x[f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VBICT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vbicq[_n_s16](int16x8_t a, const int16_t imm) | a -> Qda imm in AdvSIMDExpandImm | VBIC.I16 Qda,#imm | Qda -> result | MVE |
| int32x4_t [__arm_]vbicq[_n_s32](int32x4_t a, const int32_t imm) | a -> Qda imm in AdvSIMDExpandImm | VBIC.I32 Qda,#imm | Qda -> result | MVE |
| uint16x8_t [__arm_]vbicq[_n_u16](uint16x8_t a, const uint16_t imm) | a -> Qda imm in AdvSIMDExpandImm | VBIC.I16 Qda,#imm | Qda -> result | MVE |
| uint32x4_t [__arm_]vbicq[_n_u32](uint32x4_t a, const uint32_t imm) | a -> Qda imm in AdvSIMDExpandImm | VBIC.I32 Qda,#imm | Qda -> result | MVE |
| int16x8_t [__arm_]vbicq_m_n[s16](int16x8_t a, const int16_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VBICT.I16 Qda,#imm | Qda -> result | MVE |
| int32x4_t [__arm_]vbicq_m_n[s32](int32x4_t a, const int32_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VBICT.I32 Qda,#imm | Qda -> result | MVE |
| uint16x8_t [__arm_]vbicq_m_n[u16](uint16x8_t a, const uint16_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VBICT.I16 Qda,#imm | Qda -> result | MVE |
| uint32x4_t [__arm_]vbicq_m_n[u32](uint32x4_t a, const uint32_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VBICT.I32 Qda,#imm | Qda -> result | MVE |
| int8x16_t [__arm_]vbrsrq[_n_s8](int8x16_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vbrsrq[_n_s16](int16x8_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vbrsrq[_n_s32](int32x4_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vbrsrq[_n_u8](uint8x16_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vbrsrq[_n_u16](uint16x8_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vbrsrq[_n_u32](uint32x4_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vbrsrq[_n_f16](float16x8_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vbrsrq[_n_f32](float32x4_t a, int32_t b) | a -> Qn b -> Rm | VBRSR.32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vbrsrq_m_n[s8](int8x16_t inactive, int8x16_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRSR.8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vbrsrq_m_n[s16](int16x8_t inactive, int16x8_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRSR.16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vbrsrq_m_n[s32](int32x4_t inactive, int32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRSR.32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vbrsrq_m_n[u8](uint8x16_t inactive, uint8x16_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRSR.8 Qd,Qn,Rm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| uint16x8_t [__arm_]vbrsrq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vbrsrq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vbrsrq_m[_n_f16](float16x8_t inactive, float16x8_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vbrsrq_m[_n_f32](float32x4_t inactive, float32x4_t a, int32_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]vbrsrq_x[_n_s8](int8x16_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.8 Qd,Qn,Rm | Qd -> result | MVE |
| int16x8_t [__arm_]vbrsrq_x[_n_s16](int16x8_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.16 Qd,Qn,Rm | Qd -> result | MVE |
| int32x4_t [__arm_]vbrsrq_x[_n_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.32 Qd,Qn,Rm | Qd -> result | MVE |
| uint8x16_t [__arm_]vbrsrq_x[_n_u8](uint8x16_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.8 Qd,Qn,Rm | Qd -> result | MVE |
| uint16x8_t [__arm_]vbrsrq_x[_n_u16](uint16x8_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.16 Qd,Qn,Rm | Qd -> result | MVE |
| uint32x4_t [__arm_]vbrsrq_x[_n_u32](uint32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.32 Qd,Qn,Rm | Qd -> result | MVE |
| float16x8_t [__arm_]vbrsrq_x[_n_f16](float16x8_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.16 Qd,Qn,Rm | Qd -> result | MVE |
| float32x4_t [__arm_]vbrsrq_x[_n_f32](float32x4_t a, int32_t b, mve_pred16_t p) | a -> Qn b -> Rm p -> Rp | VMSR P0,Rp VPST VBRST.32 Qd,Qn,Rm | Qd -> result | MVE |
| int8x16_t [__arm_]veorq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]veorq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]veorq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]veorq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]veorq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]veorq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]veorq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]veorq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VEOR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]veorq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]veorq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]veorq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]veorq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]veorq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| uint32x4_t [__arm_]veorq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]veorq_m[f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]veorq_m[f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]veorq_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]veorq_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]veorq_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]veorq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]veorq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]veorq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]veorq_x[f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]veorq_x[f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VEORT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovlbq[s8](int8x16_t a) | a -> Qm | VMOVLB.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovlbq[s16](int16x8_t a) | a -> Qm | VMOVLB.S16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovlbq[u8](uint8x16_t a) | a -> Qm | VMOVLB.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovlbq[u16](uint16x8_t a) | a -> Qm | VMOVLB.U16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovlbq_m[s8](int16x8_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovlbq_m[s16](int32x4_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.S16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovlbq_m[u8](uint16x8_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovlbq_m[u16](uint32x4_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.U16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovlbq_x[s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovlbq_x[s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.S16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovlbq_x[u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovlbq_x[u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLBT.U16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovltq[s8](int8x16_t a) | a -> Qm | VMOVLT.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovltq[s16](int16x8_t a) | a -> Qm | VMOVLT.S16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovltq[u8](uint8x16_t a) | a -> Qm | VMOVLT.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovltq[u16](uint16x8_t a) | a -> Qm | VMOVLT.U16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovltq_m[s8](int16x8_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovltq_m[s16](int32x4_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.S16 Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--------------------------------------|--|--------------|-------------------------|
| uint16x8_t [__arm_]vmovaltq_m[u8](uint16x8_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovaltq_m[u16](uint32x4_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.U16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovaltq_x[s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.S8 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmovaltq_x[s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.S16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovaltq_x[u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.U8 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmovaltq_x[u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMOVLTT.U16 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmovnbq[s16](int8x16_t a, int16x8_t b) | a -> Qd b -> Qm | VMOVNB.I16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovnbq[s32](int16x8_t a, int32x4_t b) | a -> Qd b -> Qm | VMOVNB.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmovnbq[u16](uint8x16_t a, uint16x8_t b) | a -> Qd b -> Qm | VMOVNB.I16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovnbq[u32](uint16x8_t a, uint32x4_t b) | a -> Qd b -> Qm | VMOVNB.I32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmovnbq_m[s16](int8x16_t a, int16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNB.T.I16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovnbq_m[s32](int16x8_t a, int32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNB.T.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmovnbq_m[u16](uint8x16_t a, uint16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNB.T.I16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovnbq_m[u32](uint16x8_t a, uint32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNB.T.I32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmovntq[s16](int8x16_t a, int16x8_t b) | a -> Qd b -> Qm | VMOVNT.I16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovntq[s32](int16x8_t a, int32x4_t b) | a -> Qd b -> Qm | VMOVNT.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmovntq[u16](uint8x16_t a, uint16x8_t b) | a -> Qd b -> Qm | VMOVNT.I16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovntq[u32](uint16x8_t a, uint32x4_t b) | a -> Qd b -> Qm | VMOVNT.I32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmovntq_m[s16](int8x16_t a, int16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNT.T.I16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmovntq_m[s32](int16x8_t a, int32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNT.T.I32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmovntq_m[u16](uint8x16_t a, uint16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNT.T.I16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmovntq_m[u32](uint16x8_t a, uint32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VMOVNT.T.I32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmvngq[s8](int8x16_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vmvngq[s16](int16x8_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vmvngq[s32](int32x4_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vmvngq[u8](uint8x16_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vmvngq[u16](uint16x8_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vmvngq[u32](uint32x4_t a) | a -> Qm | VMVN Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vmvngq_m[s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmvngq_m[s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmvngq_m[s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmvngq_m[u8](uint8x16_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|--------------|-------------------------|
| uint16x8_t [__arm_]vmlsq_n_u16(uint16x8_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmlsq_n_u32(uint32x4_t inactive, uint32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vmlsq_x_s8(int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmlsq_x_s16(int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vmlsq_x_s32(int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vmlsq_x_u8(uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmlsq_x_u16(uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmlsq_x_u32(uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VMVNT Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vmlsq_n_s16(const int16_t imm) | imm in AdvSIMDExpandImm | VMVN.I16 Qd,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vmlsq_n_s32(const int32_t imm) | imm in AdvSIMDExpandImm | VMVN.I32 Qd,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmlsq_n_u16(const uint16_t imm) | imm in AdvSIMDExpandImm | VMVN.I16 Qd,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmlsq_n_u32(const uint32_t imm) | imm in AdvSIMDExpandImm | VMVN.I32 Qd,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vmlsq_m_n_s16(int16x8_t inactive, const int16_t imm, mve_pred16_t p) | inactive -> Qd imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I16 Qd,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vmlsq_m_n_s32(int32x4_t inactive, const int32_t imm, mve_pred16_t p) | inactive -> Qd imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I32 Qd,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmlsq_m_n_u16(uint16x8_t inactive, const uint16_t imm, mve_pred16_t p) | inactive -> Qd imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I16 Qd,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmlsq_m_n_u32(uint32x4_t inactive, const uint32_t imm, mve_pred16_t p) | inactive -> Qd imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I32 Qd,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vmlsq_x_n_s16(const int16_t imm, mve_pred16_t p) | imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I16 Qd,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vmlsq_x_n_s32(const int32_t imm, mve_pred16_t p) | imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I32 Qd,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vmlsq_x_n_u16(const uint16_t imm, mve_pred16_t p) | imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I16 Qd,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vmlsq_x_n_u32(const uint32_t imm, mve_pred16_t p) | imm in AdvSIMDExpandImm p -> Rp | VMSR P0,Rp VPST VMVNT.I32 Qd,#imm | Qd -> result | MVE |
| mve_pred16_t [__arm_]vpsnot(mve_pred16_t a) | a -> Rp | VMSR P0,Rp VPNOT VMRS Rt,P0 | Rt -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--------------------------------------|--------------|-------------------------|
| int8x16_t [__arm_]vpsselq[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vpsselq[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vpsselq[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| int64x2_t [__arm_]vpsselq[_s64](int64x2_t a, int64x2_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vpsselq[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vpsselq[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vpsselq[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| uint64x2_t [__arm_]vpsselq[_u64](uint64x2_t a, uint64x2_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vpsselq[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vpsselq[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPSEL Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vornq[_f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vornq[_f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vornq[_s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vornq[_s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vornq[_s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vornq[_u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vornq[_u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vornq[_u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VORN Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vornq_m[_f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vornq_m[_f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vornq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vornq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vornq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vornq_m[_u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vornq_m[_u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--------------------------------------|--------------|-------------------------|
| uint32x4_t [__arm_]vornq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vornq_x[f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vornq_x[f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vornq_x[s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vornq_x[s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vornq_x[s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vornq_x[u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vornq_x[u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vornq_x[u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORNT Qd,Qn,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vorrq[f16](float16x8_t a, float16x8_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vorrq[f32](float32x4_t a, float32x4_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vorrq[s8](int8x16_t a, int8x16_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vorrq[s16](int16x8_t a, int16x8_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vorrq[s32](int32x4_t a, int32x4_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vorrq[u8](uint8x16_t a, uint8x16_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vorrq[u16](uint16x8_t a, uint16x8_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vorrq[u32](uint32x4_t a, uint32x4_t b) | a -> Qn b -> Qm | VORR Qd,Qn,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vorrq_m[f16](float16x8_t inactive, float16x8_t a, float16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vorrq_m[f32](float32x4_t inactive, float32x4_t a, float32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vorrq_m[s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vorrq_m[s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vorrq_m[s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vorrq_m[u8](uint8x16_t inactive, uint8x16_t a, uint8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vorrq_m[u16](uint16x8_t inactive, uint16x8_t a, uint16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vorrq_m[u32](uint32x4_t inactive, uint32x4_t a, uint32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--|---|---------------|-------------------------|
| float16x8_t [__arm_]vorrq_x[_f16](float16x8_t a, float16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vorrq_x[_f32](float32x4_t a, float32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vorrq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vorrq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vorrq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vorrq_x[_u8](uint8x16_t a, uint8x16_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vorrq_x[_u16](uint16x8_t a, uint16x8_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vorrq_x[_u32](uint32x4_t a, uint32x4_t b, mve_pred16_t p) | a -> Qn b -> Qm p -> Rp | VMSR P0,Rp VPST VORRT Qd,Qn,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vorrq[_n_s16](int16x8_t a, const int16_t imm) | a -> Qda imm in AdvSIMDExpandedImm | VORR.I16 Qda,#imm | Qda -> result | MVE |
| int32x4_t [__arm_]vorrq[_n_s32](int32x4_t a, const int32_t imm) | a -> Qda imm in AdvSIMDExpandedImm | VORR.I32 Qda,#imm | Qda -> result | MVE |
| uint16x8_t [__arm_]vorrq[_n_u16](uint16x8_t a, const uint16_t imm) | a -> Qda imm in AdvSIMDExpandedImm | VORR.I16 Qda,#imm | Qda -> result | MVE |
| uint32x4_t [__arm_]vorrq[_n_u32](uint32x4_t a, const uint32_t imm) | a -> Qda imm in AdvSIMDExpandedImm | VORR.I32 Qda,#imm | Qda -> result | MVE |
| int16x8_t [__arm_]vorrq_m_n[_s16](int16x8_t a, const int16_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandedImm p -> Rp | VMSR P0,Rp VPST VORRT.I16 Qda,#imm | Qda -> result | MVE |
| int32x4_t [__arm_]vorrq_m_n[_s32](int32x4_t a, const int32_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandedImm p -> Rp | VMSR P0,Rp VPST VORRT.I32 Qda,#imm | Qda -> result | MVE |
| uint16x8_t [__arm_]vorrq_m_n[_u16](uint16x8_t a, const uint16_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandedImm p -> Rp | VMSR P0,Rp VPST VORRT.I16 Qda,#imm | Qda -> result | MVE |
| uint32x4_t [__arm_]vorrq_m_n[_u32](uint32x4_t a, const uint32_t imm, mve_pred16_t p) | a -> Qda imm in AdvSIMDExpandedImm p -> Rp | VMSR P0,Rp VPST VORRT.I32 Qda,#imm | Qda -> result | MVE |
| int8x16_t [__arm_]vqmovnbq[_s16](int8x16_t a, int16x8_t b) | a -> Qd b -> Qm | VQMOVNB.S16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqmovnbq[_s32](int16x8_t a, int32x4_t b) | a -> Qd b -> Qm | VQMOVNB.S32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqmovnbq[_u16](uint8x16_t a, uint16x8_t b) | a -> Qd b -> Qm | VQMOVNB.U16 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqmovnbq[_u32](uint16x8_t a, uint32x4_t b) | a -> Qd b -> Qm | VQMOVNB.U32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vqmovnbq_m[_s16](int8x16_t a, int16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNB.T.S16 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vqmovnbq_m[_s32](int16x8_t a, int32x4_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNB.T.S32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqmovnbq_m[_u16](uint8x16_t a, uint16x8_t b, mve_pred16_t p) | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNB.T.U16 Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--------------------------------|--|---------------|-------------------------|
| <code>uint16x8_t [__arm_]vqmovnbq_m[_u32](uint16x8_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNB.T.U32 Qd,Qm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vqmovntq[_s16](int8x16_t a, int16x8_t b)</code> | a -> Qd b -> Qm | VQMOVNT.S16 Qd,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vqmovntq[_s32](int16x8_t a, int32x4_t b)</code> | a -> Qd b -> Qm | VQMOVNT.S32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovntq[_u16](uint8x16_t a, uint16x8_t b)</code> | a -> Qd b -> Qm | VQMOVNT.U16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovntq[_u32](uint16x8_t a, uint32x4_t b)</code> | a -> Qd b -> Qm | VQMOVNT.U32 Qd,Qm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vqmovntq_m[_s16](int8x16_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNTT.S16 Qd,Qm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vqmovntq_m[_s32](int16x8_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNTT.S32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovntq_m[_u16](uint8x16_t a, uint16x8_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNTT.U16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovntq_m[_u32](uint16x8_t a, uint32x4_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVNTT.U32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovunbq[_s16](uint8x16_t a, int16x8_t b)</code> | a -> Qd b -> Qm | VQMOVUNB.S16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovunbq[_s32](uint16x8_t a, int32x4_t b)</code> | a -> Qd b -> Qm | VQMOVUNB.S32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovunbq_m[_s16](uint8x16_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVUNBT.S16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovunbq_m[_s32](uint16x8_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVUNBT.S32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovuntq[_s16](uint8x16_t a, int16x8_t b)</code> | a -> Qd b -> Qm | VQMOVUNT.S16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovuntq[_s32](uint16x8_t a, int32x4_t b)</code> | a -> Qd b -> Qm | VQMOVUNT.S32 Qd,Qm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqmovuntq_m[_s16](uint8x16_t a, int16x8_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVUNT.T.S16 Qd,Qm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqmovuntq_m[_s32](uint16x8_t a, int32x4_t b, mve_pred16_t p)</code> | a -> Qd b -> Qm p -> Rp | VMSR P0,Rp VPST VQMOVUNT.T.S32 Qd,Qm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vqrshlq[_n_s8](int8x16_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.S8 Qda,Rm | Qda -> result | MVE |
| <code>int16x8_t [__arm_]vqrshlq[_n_s16](int16x8_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.S16 Qda,Rm | Qda -> result | MVE |
| <code>int32x4_t [__arm_]vqrshlq[_n_s32](int32x4_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.S32 Qda,Rm | Qda -> result | MVE |
| <code>uint8x16_t [__arm_]vqrshlq[_n_u8](uint8x16_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.U8 Qda,Rm | Qda -> result | MVE |
| <code>uint16x8_t [__arm_]vqrshlq[_n_u16](uint16x8_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.U16 Qda,Rm | Qda -> result | MVE |
| <code>uint32x4_t [__arm_]vqrshlq[_n_u32](uint32x4_t a, int32_t b)</code> | a -> Qda b -> Rm | VQRSHL.U32 Qda,Rm | Qda -> result | MVE |
| <code>int8x16_t [__arm_]vqrshlq_m_n[_s8](int8x16_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.S8 Qda,Rm | Qda -> result | MVE |
| <code>int16x8_t [__arm_]vqrshlq_m_n[_s16](int16x8_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.S16 Qda,Rm | Qda -> result | MVE |
| <code>int32x4_t [__arm_]vqrshlq_m_n[_s32](int32x4_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.S32 Qda,Rm | Qda -> result | MVE |
| <code>uint8x16_t [__arm_]vqrshlq_m_n[_u8](uint8x16_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.U8 Qda,Rm | Qda -> result | MVE |
| <code>uint16x8_t [__arm_]vqrshlq_m_n[_u16](uint16x8_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.U16 Qda,Rm | Qda -> result | MVE |
| <code>uint32x4_t [__arm_]vqrshlq_m_n[_u32](uint32x4_t a, int32_t b, mve_pred16_t p)</code> | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQRSHLT.U32 Qda,Rm | Qda -> result | MVE |
| <code>int8x16_t [__arm_]vqrshlq[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qm b -> Qn | VQRSHL.S8 Qd,Qm,Qn | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| int16x8_t [__arm_]vqrshlq[_s16](int16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VQRSHL.S16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqrshlq[_s32](int32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VQRSHL.S32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vqrshlq[_u8](uint8x16_t a, int8x16_t b) | a -> Qm b -> Qn | VQRSHL.U8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vqrshlq[_u16](uint16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VQRSHL.U16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vqrshlq[_u32](uint32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VQRSHL.U32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqrshlq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| int16x8_t [__arm_]vqrshlq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |
| int32x4_t [__arm_]vqrshlq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vqrshlq_m[_u8](uint8x16_t inactive, uint8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vqrshlq_m[_u16](uint16x8_t inactive, uint16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |
| uint32x4_t [__arm_]vqrshlq_m[_u32](uint32x4_t inactive, uint32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQRSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vqsrhnbq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRNB.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsrhnbq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRNB.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqsrhnbq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRNB.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqsrhnbq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRNB.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqsrhnbq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRNB.T.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsrhnbq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRNB.T.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqsrhnbq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRNB.T.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqsrhnbq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRNB.T.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqsrhntq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRNT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqsrhntq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRNT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqsrhntq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRNT.U16 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|---|--------------|-------------------------|
| <code>uint16x8_t [__arm_]vqsrhmtq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm)</code> | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRNT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vqsrhmtq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRNTT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vqsrhmtq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRNTT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqsrhmtq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRNTT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqsrhmtq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRNTT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqsrhrunbq[_n_s16](uint8x16_t a, int16x8_t b, const int imm)</code> | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRUNB.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqsrhrunbq[_n_s32](uint16x8_t a, int32x4_t b, const int imm)</code> | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRUNB.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqsrhrunbq_m[_n_s16](uint8x16_t a, int16x8_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRUNBT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqsrhrunbq_m[_n_s32](uint16x8_t a, int32x4_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRUNBT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqsrhruntq[_n_s16](uint8x16_t a, int16x8_t b, const int imm)</code> | a -> Qd b -> Qm l <= imm <= 8 | VQRSHRUNT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqsrhruntq[_n_s32](uint16x8_t a, int32x4_t b, const int imm)</code> | a -> Qd b -> Qm l <= imm <= 16 | VQRSHRUNT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vqsrhruntq_m[_n_s16](uint8x16_t a, int16x8_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQRSHRUNTT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vqsrhruntq_m[_n_s32](uint16x8_t a, int32x4_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQRSHRUNTT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vqshlq[_s8](int8x16_t a, int8x16_t b)</code> | a -> Qm b -> Qn | VQSHL.S8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>int16x8_t [__arm_]vqshlq[_s16](int16x8_t a, int16x8_t b)</code> | a -> Qm b -> Qn | VQSHL.S16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>int32x4_t [__arm_]vqshlq[_s32](int32x4_t a, int32x4_t b)</code> | a -> Qm b -> Qn | VQSHL.S32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>uint8x16_t [__arm_]vqshlq[_u8](uint8x16_t a, int8x16_t b)</code> | a -> Qm b -> Qn | VQSHL.U8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>uint16x8_t [__arm_]vqshlq[_u16](uint16x8_t a, int16x8_t b)</code> | a -> Qm b -> Qn | VQSHL.U16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>uint32x4_t [__arm_]vqshlq[_u32](uint32x4_t a, int32x4_t b)</code> | a -> Qm b -> Qn | VQSHL.U32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| <code>int8x16_t [__arm_]vqshlq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vqshlq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p)</code> | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|---------------|-------------------------|
| int32x4_t [__arm_]vqshlq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshlq_m[_u8](uint8x16_t inactive, uint8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshlq_m[_u16](uint16x8_t inactive, uint16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |
| uint32x4_t [__arm_]vqshlq_m[_u32](uint32x4_t inactive, uint32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VQSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vqshlq_n[_s8](int8x16_t a, const int imm) | a -> Qm 0 <= imm <= 7 | VQSHL.S8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vqshlq_n[_s16](int16x8_t a, const int imm) | a -> Qm 0 <= imm <= 15 | VQSHL.S16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vqshlq_n[_s32](int32x4_t a, const int imm) | a -> Qm 0 <= imm <= 31 | VQSHL.S32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vqshlq_n[_u8](uint8x16_t a, const int imm) | a -> Qm 0 <= imm <= 7 | VQSHL.U8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vqshlq_n[_u16](uint16x8_t a, const int imm) | a -> Qm 0 <= imm <= 15 | VQSHL.U16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vqshlq_n[_u32](uint32x4_t a, const int imm) | a -> Qm 0 <= imm <= 31 | VQSHL.U32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vqshlq_m_n[_s8](int8x16_t inactive, int8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VQSHLT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqshlq_m_n[_s16](int16x8_t inactive, int16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VQSHLT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vqshlq_m_n[_s32](int32x4_t inactive, int32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VQSHLT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshlq_m_n[_u8](uint8x16_t inactive, uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VQSHLT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshlq_m_n[_u16](uint16x8_t inactive, uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VQSHLT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqshlq_m_n[_u32](uint32x4_t inactive, uint32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VQSHLT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqshlq_r[_s8](int8x16_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.S8 Qda,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vqshlq_r[_s16](int16x8_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqshlq_r[_s32](int32x4_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vqshlq_r[_u8](uint8x16_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vqshlq_r[_u16](uint16x8_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.U16 Qda,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vqshlq_r[_u32](uint32x4_t a, int32_t b) | a -> Qda b -> Rm | VQSHL.U32 Qda,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vqshlq_m_r[_s8](int8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.S8 Qda,Rm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|--|---------------|-------------------------|
| int16x8_t [__arm_]vqshlq_m_r[_s16](int16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vqshlq_m_r[_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vqshlq_m_r[_u8](uint8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vqshlq_m_r[_u16](uint16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.U16 Qda,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vqshlq_m_r[_u32](uint32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VQSHLT.U32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vqshluq[_n_s8](int8x16_t a, const int imm) | a -> Qm 0 <= imm <= 7 | VQSHLU.S8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshluq[_n_s16](int16x8_t a, const int imm) | a -> Qm 0 <= imm <= 15 | VQSHLU.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqshluq[_n_s32](int32x4_t a, const int imm) | a -> Qm 0 <= imm <= 31 | VQSHLU.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshluq_m[_n_s8](uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VQSHLUT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshluq_m[_n_s16](uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VQSHLUT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vqshluq_m[_n_s32](uint32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VQSHLUT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqshrbq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 8 | VQSHRNB.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqshrbq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 16 | VQSHRNB.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrbq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 8 | VQSHRNB.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrbq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 16 | VQSHRNB.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqshrbq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRNB.T.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqshrbq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRNB.T.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrbq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRNB.T.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrbq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRNB.T.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqshrtq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 8 | VQSHRNT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqshrtq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 16 | VQSHRNT.S32 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| uint8x16_t [__arm_]vqshrtq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQSHRNT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrtq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQSHRNT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vqshrtq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRNTT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vqshrtq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRNTT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrtq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRNTT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrtq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRNTT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrunbq[_n_s16](uint8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQSHRUNB.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrunbq[_n_s32](uint16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQSHRUNB.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrunbq_m[_n_s16](uint8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRUNBT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrunbq_m[_n_s32](uint16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRUNBT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrunbq[_n_s16](uint8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VQSHRUNT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrunbq[_n_s32](uint16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VQSHRUNT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vqshrunbq_m[_n_s16](uint8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VQSHRUNTT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vqshrunbq_m[_n_s32](uint16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VQSHRUNTT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev16q[_s8](int8x16_t a) | a -> Qm | VREV16.8 Qd,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrev16q[_u8](uint8x16_t a) | a -> Qm | VREV16.8 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vrev16q_m[_s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV16T.8 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev16q_m[_u8](uint8x16_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV16T.8 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev16q_x[_s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV16T.8 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev16q_x[_u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV16T.8 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev32q[_s8](int8x16_t a) | a -> Qm | VREV32.8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vrev32q[_s16](int16x8_t a) | a -> Qm | VREV32.16 Qd,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrev32q[_u8](uint8x16_t a) | a -> Qm | VREV32.8 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vrev32q[_u16](uint16x8_t a) | a -> Qm | VREV32.16 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrev32q[_f16](float16x8_t a) | a -> Qm | VREV32.16 Qd,Qm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--------------------------------------|--|--------------|-------------------------|
| int8x16_t [__arm_]vrev32q_m[s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrev32q_m[s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev32q_m[u8](uint8x16_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.8 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrev32q_m[u16](uint16x8_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrev32q_m[f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev32q_x[s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrev32q_x[s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev32q_x[u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.8 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrev32q_x[u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrev32q_x[f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV32T.16 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev64q[s8](int8x16_t a) | a -> Qm | VREV64.8 Qd,Qm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vrev64q[s16](int16x8_t a) | a -> Qm | VREV64.16 Qd,Qm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vrev64q[s32](int32x4_t a) | a -> Qm | VREV64.32 Qd,Qm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrev64q[u8](uint8x16_t a) | a -> Qm | VREV64.8 Qd,Qm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vrev64q[u16](uint16x8_t a) | a -> Qm | VREV64.16 Qd,Qm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vrev64q[u32](uint32x4_t a) | a -> Qm | VREV64.32 Qd,Qm | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vrev64q[f16](float16x8_t a) | a -> Qm | VREV64.16 Qd,Qm | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vrev64q[f32](float32x4_t a) | a -> Qm | VREV64.32 Qd,Qm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vrev64q_m[s8](int8x16_t inactive, int8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrev64q_m[s16](int16x8_t inactive, int16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrev64q_m[s32](int32x4_t inactive, int32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev64q_m[u8](uint8x16_t inactive, uint8x16_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.8 Qd,Qm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrev64q_m[u16](uint16x8_t inactive, uint16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrev64q_m[u32](uint32x4_t inactive, uint32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrev64q_m[f16](float16x8_t inactive, float16x8_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrev64q_m[f32](float32x4_t inactive, float32x4_t a, mve_pred16_t p) | inactive -> Qd a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrev64q_x[s8](int8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.8 Qd,Qm | Qd -> result | MVE |
| int16x8_t [__arm_]vrev64q_x[s16](int16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| int32x4_t [__arm_]vrev64q_x[s32](int32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrev64q_x[u8](uint8x16_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.8 Qd,Qm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------|-------------------------|
| uint16x8_t [__arm_]vrev64q_x[_u16](uint16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| uint32x4_t [__arm_]vrev64q_x[_u32](uint32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| float16x8_t [__arm_]vrev64q_x[_f16](float16x8_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.16 Qd,Qm | Qd -> result | MVE |
| float32x4_t [__arm_]vrev64q_x[_f32](float32x4_t a, mve_pred16_t p) | a -> Qm p -> Rp | VMSR P0,Rp VPST VREV64T.32 Qd,Qm | Qd -> result | MVE |
| int8x16_t [__arm_]vrshlq[_n_s8](int8x16_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.S8 Qda,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vrshlq[_n_s16](int16x8_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vrshlq[_n_s32](int32x4_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vrshlq[_n_u8](uint8x16_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vrshlq[_n_u16](uint16x8_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.U16 Qda,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vrshlq[_n_u32](uint32x4_t a, int32_t b) | a -> Qda b -> Rm | VRSHL.U32 Qda,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vrshlq_m_n[_s8](int8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.S8 Qda,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vrshlq_m_n[_s16](int16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vrshlq_m_n[_s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vrshlq_m_n[_u8](uint8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vrshlq_m_n[_u16](uint16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.U16 Qda,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vrshlq_m_n[_u32](uint32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VRSHLT.U32 Qda,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vrshlq[_s8](int8x16_t a, int8x16_t b) | a -> Qm b -> Qn | VRSHL.S8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vrshlq[_s16](int16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VRSHL.S16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vrshlq[_s32](int32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VRSHL.S32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrshlq[_u8](uint8x16_t a, int8x16_t b) | a -> Qm b -> Qn | VRSHL.U8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vrshlq[_u16](uint16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VRSHL.U16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vrshlq[_u32](uint32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VRSHL.U32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vrshlq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| int16x8_t [__arm_]vrshlq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |
| int32x4_t [__arm_]vrshlq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshlq_m[_u8](uint8x16_t inactive, uint8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshlq_m[_u16](uint16x8_t inactive, uint16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|----------------------------|-------------------------|
| uint32x4_t [__arm_]vrshlq_m[_u32](uint32x4_t inactive, uint32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vrshlq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| int16x8_t [__arm_]vrshlq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |
| int32x4_t [__arm_]vrshlq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshlq_x[_u8](uint8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshlq_x[_u16](uint16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |
| uint32x4_t [__arm_]vrshlq_x[_u32](uint32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VRSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vshlcq[_s8](int8x16_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| int16x8_t [__arm_]vshlcq[_s16](int16x8_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| int32x4_t [__arm_]vshlcq[_s32](int32x4_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint8x16_t [__arm_]vshlcq[_u8](uint8x16_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint16x8_t [__arm_]vshlcq[_u16](uint16x8_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint32x4_t [__arm_]vshlcq[_u32](uint32x4_t a, uint32_t * b, const int imm) | a -> Qda *b -> Rdm 1 <= imm <= 32 | VSHLC Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| int8x16_t [__arm_]vshlcq_m[_s8](int8x16_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| int16x8_t [__arm_]vshlcq_m[_s16](int16x8_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| int32x4_t [__arm_]vshlcq_m[_s32](int32x4_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint8x16_t [__arm_]vshlcq_m[_u8](uint8x16_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint16x8_t [__arm_]vshlcq_m[_u16](uint16x8_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |
| uint32x4_t [__arm_]vshlcq_m[_u32](uint32x4_t a, uint32_t * b, const int imm, mve_pred16_t p) | a -> Qda *b -> Rdm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHLCT Qda,Rdm,#imm | Qda -> result Rdm -> *b | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--|--|--------------|-------------------------|
| int16x8_t [__arm_]vshllbq[_n_s8](int8x16_t a, const int imm) | a -> Qm 1 <= imm <= 8 | VSHLLB.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshllbq[_n_s16](int16x8_t a, const int imm) | a -> Qm 1 <= imm <= 16 | VSHLLB.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshllbq[_n_u8](uint8x16_t a, const int imm) | a -> Qm 1 <= imm <= 8 | VSHLLB.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshllbq[_n_u16](uint16x8_t a, const int imm) | a -> Qm 1 <= imm <= 16 | VSHLLB.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshllbq_m[_n_s8](int16x8_t inactive, int8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLBT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshllbq_m[_n_s16](int32x4_t inactive, int16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLBT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshllbq_m[_n_u8](uint16x8_t inactive, uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLBT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshllbq_m[_n_u16](uint32x4_t inactive, uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLBT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshllbq_x[_n_s8](int8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLBT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshllbq_x[_n_s16](int16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLBT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshllbq_x[_n_u8](uint8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLBT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshllbq_x[_n_u16](uint16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLBT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlltq[_n_s8](int8x16_t a, const int imm) | a -> Qm 1 <= imm <= 8 | VSHLLT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlltq[_n_s16](int16x8_t a, const int imm) | a -> Qm 1 <= imm <= 16 | VSHLLT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlltq[_n_u8](uint8x16_t a, const int imm) | a -> Qm 1 <= imm <= 8 | VSHLLT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlltq[_n_u16](uint16x8_t a, const int imm) | a -> Qm 1 <= imm <= 16 | VSHLLT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlltq_m[_n_s8](int16x8_t inactive, int8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLTT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlltq_m[_n_s16](int32x4_t inactive, int16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLTT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlltq_m[_n_u8](uint16x8_t inactive, uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLTT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlltq_m[_n_u16](uint32x4_t inactive, uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLTT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlltq_x[_n_s8](int8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLTT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlltq_x[_n_s16](int16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLTT.S16 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|---|--|--------------|-------------------------|
| uint16x8_t [__arm_]vshlltq_x[_n_u8](uint8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHLLTT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlltq_x[_n_u16](uint16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHLLTT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshlq[_s8](int8x16_t a, int8x16_t b) | a -> Qm b -> Qn | VSHL.S8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vshlq[_s16](int16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VSHL.S16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vshlq[_s32](int32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VSHL.S32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vshlq[_u8](uint8x16_t a, int8x16_t b) | a -> Qm b -> Qn | VSHL.U8 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vshlq[_u16](uint16x8_t a, int16x8_t b) | a -> Qm b -> Qn | VSHL.U16 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vshlq[_u32](uint32x4_t a, int32x4_t b) | a -> Qm b -> Qn | VSHL.U32 Qd,Qm,Qn | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vshlq_m[_s8](int8x16_t inactive, int8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| int16x8_t [__arm_]vshlq_m[_s16](int16x8_t inactive, int16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |
| int32x4_t [__arm_]vshlq_m[_s32](int32x4_t inactive, int32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vshlq_m[_u8](uint8x16_t inactive, uint8x16_t a, int8x16_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlq_m[_u16](uint16x8_t inactive, uint16x8_t a, int16x8_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlq_m[_u32](uint32x4_t inactive, uint32x4_t a, int32x4_t b, mve_pred16_t p) | inactive -> Qd a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vshlq_x[_s8](int8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S8 Qd,Qm,Qn | Qd -> result | MVE |
| int16x8_t [__arm_]vshlq_x[_s16](int16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S16 Qd,Qm,Qn | Qd -> result | MVE |
| int32x4_t [__arm_]vshlq_x[_s32](int32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.S32 Qd,Qm,Qn | Qd -> result | MVE |
| uint8x16_t [__arm_]vshlq_x[_u8](uint8x16_t a, int8x16_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U8 Qd,Qm,Qn | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlq_x[_u16](uint16x8_t a, int16x8_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U16 Qd,Qm,Qn | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlq_x[_u32](uint32x4_t a, int32x4_t b, mve_pred16_t p) | a -> Qm b -> Qn p -> Rp | VMSR P0,Rp VPST VSHLT.U32 Qd,Qm,Qn | Qd -> result | MVE |
| int8x16_t [__arm_]vshlq_n[_s8](int8x16_t a, const int imm) | a -> Qm 0 <= imm <= 7 | VSHL.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlq_n[_s16](int16x8_t a, const int imm) | a -> Qm 0 <= imm <= 15 | VSHL.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlq_n[_s32](int32x4_t a, const int imm) | a -> Qm 0 <= imm <= 31 | VSHL.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshlq_n[_u8](uint8x16_t a, const int imm) | a -> Qm 0 <= imm <= 7 | VSHL.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlq_n[_u16](uint16x8_t a, const int imm) | a -> Qm 0 <= imm <= 15 | VSHL.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlq_n[_u32](uint32x4_t a, const int imm) | a -> Qm 0 <= imm <= 31 | VSHL.U32 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|--|---------------|-------------------------|
| int8x16_t [__arm_]vshlq_m_n[s8](int8x16_t inactive, int8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSHLT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlq_m_n[s16](int16x8_t inactive, int16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSHLT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlq_m_n[s32](int32x4_t inactive, int32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSHLT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshlq_m_n[u8](uint8x16_t inactive, uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSHLT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlq_m_n[u16](uint16x8_t inactive, uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSHLT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlq_m_n[u32](uint32x4_t inactive, uint32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSHLT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshlq_x_n[s8](int8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSHLT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshlq_x_n[s16](int16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSHLT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshlq_x_n[s32](int32x4_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSHLT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshlq_x_n[u8](uint8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSHLT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshlq_x_n[u16](uint16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSHLT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshlq_x_n[u32](uint32x4_t a, const int imm, mve_pred16_t p) | a -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSHLT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshlq_r[s8](int8x16_t a, int32_t b) | a -> Qda b -> Rm | VSHL.S8 Qda,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vshlq_r[s16](int16x8_t a, int32_t b) | a -> Qda b -> Rm | VSHL.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vshlq_r[s32](int32x4_t a, int32_t b) | a -> Qda b -> Rm | VSHL.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vshlq_r[u8](uint8x16_t a, int32_t b) | a -> Qda b -> Rm | VSHL.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vshlq_r[u16](uint16x8_t a, int32_t b) | a -> Qda b -> Rm | VSHL.U16 Qda,Rm | Qda -> result | MVE |
| uint32x4_t [__arm_]vshlq_r[u32](uint32x4_t a, int32_t b) | a -> Qda b -> Rm | VSHL.U32 Qda,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vshlq_m_r[s8](int8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.S8 Qda,Rm | Qda -> result | MVE |
| int16x8_t [__arm_]vshlq_m_r[s16](int16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.S16 Qda,Rm | Qda -> result | MVE |
| int32x4_t [__arm_]vshlq_m_r[s32](int32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.S32 Qda,Rm | Qda -> result | MVE |
| uint8x16_t [__arm_]vshlq_m_r[u8](uint8x16_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.U8 Qda,Rm | Qda -> result | MVE |
| uint16x8_t [__arm_]vshlq_m_r[u16](uint16x8_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.U16 Qda,Rm | Qda -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|--|---------------|-------------------------|
| uint32x4_t [__arm_]vshlq_m_r[_u32](uint32x4_t a, int32_t b, mve_pred16_t p) | a -> Qda b -> Rm p -> Rp | VMSR P0,Rp VPST VSHLT.U32 Qda,Rm | Qda -> result | MVE |
| int8x16_t [__arm_]vrshrbq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VRSHRN.B.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vrshrbq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VRSHRN.B.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshrbq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VRSHRN.B.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshrbq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VRSHRN.B.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vrshrbq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRN.BT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vrshrbq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRN.BT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshrbq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRN.BT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshrbq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRN.BT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vrshrtq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VRSHRN.T.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vrshrtq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VRSHRN.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshrtq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VRSHRN.T.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshrtq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VRSHRN.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vrshrtq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRN.TT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vrshrtq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRN.TT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vrshrtq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRN.TT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vrshrtq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRN.TT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vrshrq[_n_s8](int8x16_t a, const int imm) | a -> Qm l <= imm <= 8 | VRSHR.S8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vrshrq[_n_s16](int16x8_t a, const int imm) | a -> Qm l <= imm <= 16 | VRSHR.S16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vrshrq[_n_s32](int32x4_t a, const int imm) | a -> Qm l <= imm <= 32 | VRSHR.S32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vrshrq[_n_u8](uint8x16_t a, const int imm) | a -> Qm l <= imm <= 8 | VRSHR.U8 Qd,Qm,#imm | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--|---|--------------|-------------------------|
| <code>uint16x8_t [__arm_]vrshrq[_n_u16](uint16x8_t a, const int imm)</code> | a -> Qm 1 <= imm <= 16 | VRSHR.U16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| <code>uint32x4_t [__arm_]vrshrq[_n_u32](uint32x4_t a, const int imm)</code> | a -> Qm 1 <= imm <= 32 | VRSHR.U32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| <code>int8x16_t [__arm_]vrshrq_m[_n_s8](int8x16_t inactive, int8x16_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vrshrq_m[_n_s16](int16x8_t inactive, int16x8_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int32x4_t [__arm_]vrshrq_m[_n_s32](int32x4_t inactive, int32x4_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VRSHRT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vrshrq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vrshrq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vrshrq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, const int imm, mve_pred16_t p)</code> | inactive -> Qd a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VRSHRT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vrshrq_x[_n_s8](int8x16_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vrshrq_x[_n_s16](int16x8_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int32x4_t [__arm_]vrshrq_x[_n_s32](int32x4_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VRSHRT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vrshrq_x[_n_u8](uint8x16_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VRSHRT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vrshrq_x[_n_u16](uint16x8_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VRSHRT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint32x4_t [__arm_]vrshrq_x[_n_u32](uint32x4_t a, const int imm, mve_pred16_t p)</code> | a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VRSHRT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vshrbq[_n_s16](int8x16_t a, int16x8_t b, const int imm)</code> | a -> Qd b -> Qm 1 <= imm <= 8 | VSHRNB.I16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int16x8_t [__arm_]vshrbq[_n_s32](int16x8_t a, int32x4_t b, const int imm)</code> | a -> Qd b -> Qm 1 <= imm <= 16 | VSHRNB.I32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint8x16_t [__arm_]vshrbq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm)</code> | a -> Qd b -> Qm 1 <= imm <= 8 | VSHRNB.I16 Qd,Qm,#imm | Qd -> result | MVE |
| <code>uint16x8_t [__arm_]vshrbq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm)</code> | a -> Qd b -> Qm 1 <= imm <= 16 | VSHRNB.I32 Qd,Qm,#imm | Qd -> result | MVE |
| <code>int8x16_t [__arm_]vshrbq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p)</code> | a -> Qd b -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRNB.T16 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|--------------|-------------------------|
| int16x8_t [__arm_]vshrbq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRNB.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshrbq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRNB.T.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshrbq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRNB.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshrtq[_n_s16](int8x16_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VSHRNT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshrtq[_n_s32](int16x8_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VSHRNT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshrtq[_n_u16](uint8x16_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 8 | VSHRNT.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshrtq[_n_u32](uint16x8_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm l <= imm <= 16 | VSHRNT.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshrtq_m[_n_s16](int8x16_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRNT.T.I16 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshrtq_m[_n_s32](int16x8_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRNT.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshrtq_m[_n_u16](uint8x16_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRNT.T.I16 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshrtq_m[_n_u32](uint16x8_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRNT.T.I32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshrq[_n_s8](int8x16_t a, const int imm) | a -> Qm l <= imm <= 8 | VSHR.S8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vshrq[_n_s16](int16x8_t a, const int imm) | a -> Qm l <= imm <= 16 | VSHR.S16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vshrq[_n_s32](int32x4_t a, const int imm) | a -> Qm l <= imm <= 32 | VSHR.S32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vshrq[_n_u8](uint8x16_t a, const int imm) | a -> Qm l <= imm <= 8 | VSHR.U8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vshrq[_n_u16](uint16x8_t a, const int imm) | a -> Qm l <= imm <= 16 | VSHR.U16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vshrq[_n_u32](uint32x4_t a, const int imm) | a -> Qm l <= imm <= 32 | VSHR.U32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vshrq_m[_n_s8](int8x16_t inactive, int8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm l <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshrq_m[_n_s16](int16x8_t inactive, int16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm l <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshrq_m[_n_s32](int32x4_t inactive, int32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm l <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHRT.S32 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|--|--|--------------|-------------------------|
| uint8x16_t [__arm_]vshrq_m[_n_u8](uint8x16_t inactive, uint8x16_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshrq_m[_n_u16](uint16x8_t inactive, uint16x8_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshrq_m[_n_u32](uint32x4_t inactive, uint32x4_t a, const int imm, mve_pred16_t p) | inactive -> Qd a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHRT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vshrq_x[_n_s8](int8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRT.S8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vshrq_x[_n_s16](int16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRT.S16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vshrq_x[_n_s32](int32x4_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHRT.S32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vshrq_x[_n_u8](uint8x16_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSHRT.U8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vshrq_x[_n_u16](uint16x8_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSHRT.U16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vshrq_x[_n_u32](uint32x4_t a, const int imm, mve_pred16_t p) | a -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSHRT.U32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vsliq[_n_s8](int8x16_t a, int8x16_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 7 | VSLI.8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vsliq[_n_s16](int16x8_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 15 | VSLI.16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vsliq[_n_s32](int32x4_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 31 | VSLI.32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vsliq[_n_u8](uint8x16_t a, uint8x16_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 7 | VSLI.8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vsliq[_n_u16](uint16x8_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 15 | VSLI.16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vsliq[_n_u32](uint32x4_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm 0 <= imm <= 31 | VSLI.32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vsliq_m[_n_s8](int8x16_t a, int8x16_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSLIT.8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vsliq_m[_n_s16](int16x8_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSLIT.16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vsliq_m[_n_s32](int32x4_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSLIT.32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vsliq_m[_n_u8](uint8x16_t a, uint8x16_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 7 p -> Rp | VMSR P0,Rp VPST VSLIT.8 Qd,Qm,#imm | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|---|---------------------|-------------------------|
| uint16x8_t [__arm_]vslmq_m[_n_u16](uint16x8_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 15 p -> Rp | VMSR P0,Rp VPST VSLIT.16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vslmq_m[_n_u32](uint32x4_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 0 <= imm <= 31 p -> Rp | VMSR P0,Rp VPST VSLIT.32 Qd,Qm,#imm | Qd -> result | MVE |
| int8x16_t [__arm_]vsriq[_n_s8](int8x16_t a, int8x16_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 8 | VSRI.8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vsriq[_n_s16](int16x8_t a, int16x8_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 16 | VSRI.16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vsriq[_n_s32](int32x4_t a, int32x4_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 32 | VSRI.32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vsriq[_n_u8](uint8x16_t a, uint8x16_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 8 | VSRI.8 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vsriq[_n_u16](uint16x8_t a, uint16x8_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 16 | VSRI.16 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vsriq[_n_u32](uint32x4_t a, uint32x4_t b, const int imm) | a -> Qd b -> Qm 1 <= imm <= 32 | VSRI.32 Qd,Qm,#imm | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vsriq_m[_n_s8](int8x16_t a, int8x16_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSRIT.8 Qd,Qm,#imm | Qd -> result | MVE |
| int16x8_t [__arm_]vsriq_m[_n_s16](int16x8_t a, int16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSRIT.16 Qd,Qm,#imm | Qd -> result | MVE |
| int32x4_t [__arm_]vsriq_m[_n_s32](int32x4_t a, int32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSRIT.32 Qd,Qm,#imm | Qd -> result | MVE |
| uint8x16_t [__arm_]vsriq_m[_n_u8](uint8x16_t a, uint8x16_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 8 p -> Rp | VMSR P0,Rp VPST VSRIT.8 Qd,Qm,#imm | Qd -> result | MVE |
| uint16x8_t [__arm_]vsriq_m[_n_u16](uint16x8_t a, uint16x8_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 16 p -> Rp | VMSR P0,Rp VPST VSRIT.16 Qd,Qm,#imm | Qd -> result | MVE |
| uint32x4_t [__arm_]vsriq_m[_n_u32](uint32x4_t a, uint32x4_t b, const int imm, mve_pred16_t p) | a -> Qd b -> Qm 1 <= imm <= 32 p -> Rp | VMSR P0,Rp VPST VSRIT.32 Qd,Qm,#imm | Qd -> result | MVE |
| float16_t [__arm_]vgetq_lane[_f16](float16x8_t a, const int idx) | a -> Qn 0 <= idx <= 7 | VMOV.U16 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| float32_t [__arm_]vgetq_lane[_f32](float32x4_t a, const int idx) | a -> Qn 0 <= idx <= 3 | VMOV.32 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| int8_t [__arm_]vgetq_lane[_s8](int8x16_t a, const int idx) | a -> Qn 0 <= idx <= 15 | VMOV.S8 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| int16_t [__arm_]vgetq_lane[_s16](int16x8_t a, const int idx) | a -> Qn 0 <= idx <= 7 | VMOV.S16 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| int32_t [__arm_]vgetq_lane[_s32](int32x4_t a, const int idx) | a -> Qn 0 <= idx <= 3 | VMOV.32 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| int64_t [__arm_]vgetq_lane[_s64](int64x2_t a, const int idx) | a -> Qn 0 <= idx <= 1 | VMOV Rt1,Rt2,D(2*n+idx) | [Rt1,Rt2] -> result | MVE/NEON |
| uint8_t [__arm_]vgetq_lane[_u8](uint8x16_t a, const int idx) | a -> Qn 0 <= idx <= 15 | VMOV.U8 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| uint16_t [__arm_]vgetq_lane[_u16](uint16x8_t a, const int idx) | a -> Qn 0 <= idx <= 7 | VMOV.U16 Rt,Qn[idx] | Rt -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---|---------------------|-------------------------|
| uint32_t [__arm_]vsetq_lane[_u32](uint32x4_t a, const int idx) | a -> Qn 0 <= idx <= 3 | VMOV.32 Rt,Qn[idx] | Rt -> result | MVE/NEON |
| uint64_t [__arm_]vsetq_lane[_u64](uint64x2_t a, const int idx) | a -> Qn 0 <= idx <= 1 | VMOV Rt1,Rt2,D(2*n+idx) | [Rt1,Rt2] -> result | MVE/NEON |
| float16x8_t [__arm_]vsetq_lane[_f16](float16_t a, float16x8_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 7 | VMOV.16 Qd[idx],Rt | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vsetq_lane[_f32](float32_t a, float32x4_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 3 | VMOV.32 Qd[idx],Rt | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vsetq_lane[_s8](int8_t a, int8x16_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 15 | VMOV.8 Qd[idx],Rt | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vsetq_lane[_s16](int16_t a, int16x8_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 7 | VMOV.16 Qd[idx],Rt | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vsetq_lane[_s32](int32_t a, int32x4_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 3 | VMOV.32 Qd[idx],Rt | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vsetq_lane[_s64](int64_t a, int64x2_t b, const int idx) | a -> [Rt1,Rt2] b -> Qd 0 <= idx <= 1 | VMOV D(2*d+idx),Rt1,Rt2 | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vsetq_lane[_u8](uint8_t a, uint8x16_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 15 | VMOV.8 Qd[idx],Rt | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vsetq_lane[_u16](uint16_t a, uint16x8_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 7 | VMOV.16 Qd[idx],Rt | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vsetq_lane[_u32](uint32_t a, uint32x4_t b, const int idx) | a -> Rt b -> Qd 0 <= idx <= 3 | VMOV.32 Qd[idx],Rt | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vsetq_lane[_u64](uint64_t a, uint64x2_t b, const int idx) | a -> [Rt1,Rt2] b -> Qd 0 <= idx <= 1 | VMOV D(2*d+idx),Rt1,Rt2 | Qd -> result | MVE/NEON |
| mve_pred16_t [__arm_]vctp8q(uint32_t a) | a -> Rn | VCTP.8 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp16q(uint32_t a) | a -> Rn | VCTP.16 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp32q(uint32_t a) | a -> Rn | VCTP.32 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp64q(uint32_t a) | a -> Rn | VCTP.64 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp8q_m(uint32_t a, mve_pred16_t p) | a -> Rn p -> Rp | VMSR P0,Rp VPST VCTPT.8 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp16q_m(uint32_t a, mve_pred16_t p) | a -> Rn p -> Rp | VMSR P0,Rp VPST VCTPT.16 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp32q_m(uint32_t a, mve_pred16_t p) | a -> Rn p -> Rp | VMSR P0,Rp VPST VCTPT.32 Rn VMRS Rd,P0 | Rd -> result | MVE |
| mve_pred16_t [__arm_]vctp64q_m(uint32_t a, mve_pred16_t p) | a -> Rn p -> Rp | VMSR P0,Rp VPST VCTPT.64 Rn VMRS Rd,P0 | Rd -> result | MVE |
| int8x16_t [__arm_]vuninitializedq_s8(void) | | | Qd -> result | MVE |
| int16x8_t [__arm_]vuninitializedq_s16(void) | | | Qd -> result | MVE |
| int32x4_t [__arm_]vuninitializedq_s32(void) | | | Qd -> result | MVE |
| int64x2_t [__arm_]vuninitializedq_s64(void) | | | Qd -> result | MVE |
| uint8x16_t [__arm_]vuninitializedq_u8(void) | | | Qd -> result | MVE |
| uint16x8_t [__arm_]vuninitializedq_u16(void) | | | Qd -> result | MVE |
| uint32x4_t [__arm_]vuninitializedq_u32(void) | | | Qd -> result | MVE |
| uint64x2_t [__arm_]vuninitializedq_u64(void) | | | Qd -> result | MVE |
| float16x8_t [__arm_]vuninitializedq_f16(void) | | | Qd -> result | MVE |
| float32x4_t [__arm_]vuninitializedq_f32(void) | | | Qd -> result | MVE |
| int8x16_t [__arm_]vuninitializedq(int8x16_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| int16x8_t [__arm_]vuninitializedq(int16x8_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| int32x4_t [__arm_]vuninitializedq(int32x4_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| int64x2_t [__arm_]vuninitializedq(int64x2_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|--|----------------------|-------------|--------------|-------------------------|
| uint8x16_t [__arm_]vuninitializedq(uint8x16_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| uint16x8_t [__arm_]vuninitializedq(uint16x8_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| uint32x4_t [__arm_]vuninitializedq(uint32x4_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| uint64x2_t [__arm_]vuninitializedq(uint64x2_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| float16x8_t [__arm_]vuninitializedq(float16x8_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| float32x4_t [__arm_]vuninitializedq(float32x4_t t) | t -> Do Not Evaluate | | Qd -> result | MVE |
| int16x8_t [__arm_]vreinterpretq_s16[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_s8](int8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_s16](int16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_s32](int32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_f32](float32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_u8](uint8x16_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_u16](uint16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|---|----------------------------|-------------------------|-------------------------|
| int8x16_t [__arm_]vreinterpretq_s8[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_u32](uint32x4_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_u64](uint64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float16x8_t [__arm_]vreinterpretq_f16[_s64](int64x2_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int8x16_t [__arm_]vreinterpretq_s8[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int16x8_t [__arm_]vreinterpretq_s16[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int32x4_t [__arm_]vreinterpretq_s32[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| float32x4_t [__arm_]vreinterpretq_f32[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint8x16_t [__arm_]vreinterpretq_u8[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint16x8_t [__arm_]vreinterpretq_u16[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint32x4_t [__arm_]vreinterpretq_u32[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64x2_t [__arm_]vreinterpretq_u64[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| int64x2_t [__arm_]vreinterpretq_s64[_f16](float16x8_t a) | a -> Qd | NOP | Qd -> result | MVE/NEON |
| uint64_t [__arm_]lsl(uint64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | LSLL RdaLo,RdaHi,Rm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]asr(int64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | ASRL RdaLo,RdaHi,Rm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]lqrshll(uint64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | UQRSHLL RdaLo,RdaHi,#64,Rm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]lqrshll_sat48(uint64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | UQRSHLL RdaLo,RdaHi,#48,Rm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]sqsrshr(int64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | SQRSHRL RdaLo,RdaHi,#64,Rm | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]sqsrshr_sat48(int64_t value, int32_t shift) | value -> [RdaHi,RdaLo] shift -> Rm | SQRSHRL RdaLo,RdaHi,#48,Rm | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]lqshll(uint64_t value, const int shift) | value -> [RdaHi,RdaLo] 1 <= shift <= 32 | UQSHLL RdaLo,RdaHi,#shift | [RdaHi,RdaLo] -> result | MVE |
| uint64_t [__arm_]lurshr(int64_t value, const int shift) | value -> [RdaHi,RdaLo] 1 <= shift <= 32 | URSHRL RdaLo,RdaHi,#shift | [RdaHi,RdaLo] -> result | MVE |
| int64_t [__arm_]srshr(int64_t value, const int shift) | value -> [RdaHi,RdaLo] 1 <= shift <= 32 | SRSRHL RdaLo,RdaHi,#shift | [RdaHi,RdaLo] -> result | MVE |

| Intrinsic | Argument Preparation | Instruction | Result | Supported Architectures |
|---|--|---------------------------|-------------------------|-------------------------|
| int64_t [__arm_]sqshll(int64_t value, const int shift) | value -> [RdaHi,RdaLo] 1 <= shift <= 32 | SQSHLL RdaLo,RdaHi,#shift | [RdaHi,RdaLo] -> result | MVE |
| uint32_t [__arm_]uqrshl(uint32_t value, int32_t shift) | value -> Rda shift -> Rm | UQRSHL Rda,Rm | Rda -> result | MVE |
| int32_t [__arm_]sqrshr(int32_t value, int32_t shift) | value -> Rda shift -> Rm | SQRSHR Rda,Rm | Rda -> result | MVE |
| uint32_t [__arm_]uqshl(uint32_t value, const int shift) | value -> Rda 1 <= shift <= 32 | UQSHL Rda,#shift | Rda -> result | MVE |
| uint32_t [__arm_]urshr(uint32_t value, const int shift) | value -> Rda 1 <= shift <= 32 | URSHR Rda,#shift | Rda -> result | MVE |
| int32_t [__arm_]sqshl(int32_t value, const int shift) | value -> Rda 1 <= shift <= 32 | SQSHL Rda,#shift | Rda -> result | MVE |
| int32_t [__arm_]srshr(int32_t value, const int shift) | value -> Rda 1 <= shift <= 32 | SRSHR Rda,#shift | Rda -> result | MVE |