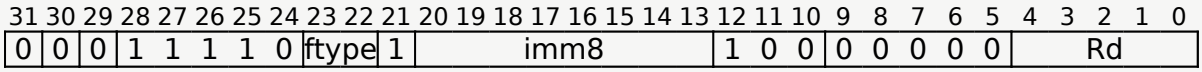
FMOV (scalar, immediate)

Floating-point move immediate (scalar). This instruction copies a floating-point immediate constant into the SIMD&FP destination register.
Depending on the settings in the *CPACR_EL1*, *CPTR_EL2*, and *CPTR_EL3* registers, and the current Security state and Exception level, an attempt to execute the instruction might be trapped.



Half-precision (ftype == 11)
(FEAT_FP16)

```
FMOV <Hd>, #<imm>
```

Single-precision (ftype == 00)

```
FMOV <Sd>, #<imm>
```

Double-precision (ftype == 01)

```
FMOV <Dd>, #<imm>
```

```
if ftype == '10' || (ftype == '11' && !IsFeatureImplemented(FEAT_FP16)) then UNDEFINED;

integer d = UInt(Rd);

constant integer datasize = 8 << UInt(ftype EOR '10');
bits(datasize) imm = VFPExpandImm(imm8, datasize);
```

Assembler Symbols

<Dd>	Is the 64-bit name of the SIMD&FP destination register, encoded in the "Rd" field.
<Hd>	Is the 16-bit name of the SIMD&FP destination register, encoded in the "Rd" field.
<Sd>	Is the 32-bit name of the SIMD&FP destination register, encoded in the "Rd" field.
<imm>	Is a signed floating-point constant with 3-bit exponent and normalized 4 bits of precision, encoded in the "imm8" field. For details of the range of constants available and the encoding of <imm>, see *Modified immediate constants in A64 floating-point instructions*.

Operation

```
CheckFPEnabled64();

V[d, datasize] = imm;
```

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