

**GMI**

Tag Mask Insert inserts the tag in the first source register into the excluded set specified in the second source register, writing the new excluded set to the destination register.

**Integer**  
**(FEAT\_MTE)**

31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
1	0	0	1	1	0	1	0	1	1	0	Xm				0	0	0	1	0	1	Xn				Xd							

**GMI** <Xd>, <Xn|SP>, <Xm>

```
if !IsFeatureImplemented(FEAT_MTE) then UNDEFINED;
integer d = UInt(Xd);
integer n = UInt(Xn);
integer m = UInt(Xm);
```

**Assembler Symbols**

- <Xd> Is the 64-bit name of the general-purpose destination register, encoded in the "Xd" field.
- <Xn|SP> Is the 64-bit name of the first source general-purpose register or stack pointer, encoded in the "Xn" field.
- <Xm> Is the 64-bit name of the second general-purpose source register, encoded in the "Xm" field.

**Operation**

```
bits(64) address = if n == 31 then SP[] else X[n, 64];
bits(64) mask = X[m, 64];
bits(4) tag = AArch64.AllocationTagFromAddress(address);
mask<UInt(tag)> = '1';
X[d, 64] = mask;
```