

## STUMAXB, STUMAXLB

Atomic unsigned maximum on byte in memory, without return, atomically loads an 8-bit byte from memory, compares it against the value held in a register, and stores the larger value back to memory, treating the values as unsigned numbers.

- STUMAXB does not have release semantics.
- STUMAXLB stores to memory with release semantics, as described in *Load-Acquire, Store-Release*.

For information about memory accesses, see *Load/Store addressing modes*.

This is an alias of [LDUMAXB, LDUMAXAB, LDUMAXALB, LDUMAXLB](#). This means:

- The encodings in this description are named to match the encodings of [LDUMAXB, LDUMAXAB, LDUMAXALB, LDUMAXLB](#).
- The description of [LDUMAXB, LDUMAXAB, LDUMAXALB, LDUMAXLB](#) gives the operational pseudocode, any constrained unpredictable behavior, and any operational information for this instruction.

### Integer (FEAT\_LSE)

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
0	0	1	1	1	0	0	0	0	R	1			Rs			0	1	1	0	0	0			Rn			1	1	1	1	1
size				A				opc												Rt											

### No memory ordering (R == 0)

STUMAXB <Ws>, [<Xn|SP>]

is equivalent to

LDUMAXB <Ws>, WZR, [<Xn|SP>]

and is always the preferred disassembly.

### Release (R == 1)

STUMAXLB <Ws>, [<Xn|SP>]

is equivalent to

LDUMAXLB <Ws>, WZR, [<Xn|SP>]

and is always the preferred disassembly.

Assembler Symbols

- <Ws> Is the 32-bit name of the general-purpose register holding the data value to be operated on with the contents of the memory location, encoded in the "Rs" field.
- <Xn|SP> Is the 64-bit name of the general-purpose base register or stack pointer, encoded in the "Rn" field.

Operation

The description of [LDUMAXB](#), [LDUMAXB](#), [LDUMAXALB](#), [LDUMAXLB](#) gives the operational pseudocode for this instruction.

Operational information

If PSTATE.DIT is 1, the timing of this instruction is insensitive to the value of the data being loaded or stored.

<a href="#">Base Instructions</a>	<a href="#">SIMD&amp;FP Instructions</a>	<a href="#">SVE Instructions</a>	<a href="#">SME Instructions</a>	<a href="#">Index by Encoding</a>
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[Sh](#)  
[Pseu](#)

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