

UFSP1 (m): 293T Lysate: sc-124445

BACKGROUND

UFM1 (ubiquitin-fold modifier 1) is a ubiquitin-like protein that is conjugated to target proteins by UBA5, an E1-like activating enzyme, and Ufc1, an E2-like conjugating enzyme. Through these interactions, UFM1 conjugates to target proteins by a covalent linkage. UFSP1 (Ufm1-specific protease 1) is a 142 amino acid thiol protease that cleaves UFM1 precursor and leads to exposure of its conserved C-terminal glycine, a step required prior to conjugation to target proteins. UFSP1 is also capable of releasing UFM1 from UFM1-conjugated cellular proteins. The gene encoding UFSP1 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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3. Komatsu, M., et al. 2004. A novel protein-conjugating system for UFM1, a ubiquitin-fold modifier. *EMBO J.* 23: 1977-1986.
4. Kang, S.H., et al. 2007. Two novel ubiquitin-fold modifier 1 (UFM1)-specific proteases, UFSP1 and UFSP2. *J. Biol. Chem.* 282: 5256-5262.
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CHROMOSOMAL LOCATION

Genetic locus: Ufsp1 (mouse) mapping to 5 G2.

PRODUCT

UFSP1 (m): 293T Lysate represents a lysate of mouse UFSP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

UFSP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive UFSP1 antibodies. Recommended use: 10-20 µl per lane.

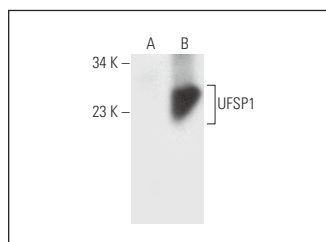
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

UFSP1 (H-3): sc-398577 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse UFSP1 expression in UFSP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



UFSP1 (H-3): sc-398577. Western blot analysis of UFSP1 expression in non-transfected: sc-117752 (A) and mouse UFSP1 transfected: sc-124445 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.