

MATERIAL DATA SHEET**His₆-UFM1, human recombinant**
Cat. # UL-500

UFM1 (ubiquitin-fold modifier 1) is a ubiquitin-like protein that is covalently linked to target proteins via enzymatic reactions similar to ubiquitin. UFM1 is derived from the precursor form pro-UFM1 (Accession # NP_057701) which contains two additional amino acids (Ser⁸⁴Cys⁸⁵) following the conserved Gly⁸³. While the sequence of UFM1 shares only 16% sequence identity with ubiquitin, they have similar overall tertiary structures. Mature UFM1 is activated by the E1-like enzyme Uba5 (**E-319**) and subsequently transferred to its cognate E2-like conjugating enzyme, Ufc1 (**E2-675**). It is known that UFM1 becomes conjugated to as yet unidentified proteins in HEK cells and various mouse tissues. UFM1 is conserved in metazoa and plants, but not yeast. The exact cellular function and role of UFM1 modification *in vivo* is not yet known. This protein contains an N-terminal His₆ tag.

Product Information

Quantity:	250 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 150 mM NaCl, 1mM DTT, 10% glycerol. Concentration varies by Lot#.
MW:	12.1 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage

Use:	Typical <i>in vitro</i> concentrations for conjugate formation is 10-50 µM depending on conditions.
Storage:	Store at -80°C once reconstituted. Avoid multiple freeze/thaw cycles.

Literature

Reference:	Kang, S.H. <i>et al.</i> (2006) <u>J. Biol. Chem.</u> 282 : 5256-5262 Komatsu, M., <i>et al.</i> (2004) <u>EMBO J.</u> 23 : 1977-1986 Liu G., <i>et al.</i> (2009) <u>J. Struct. Funct. Genomics.</u> 10 :127-136 Sasakawa, H., <i>et al.</i> (2006) <u>Biochem. Biophys. Res. Commun.</u> 343 : 21-26
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