

Active Recombinant Full Length Human/Mouse/Rat ubiquitin conjugating enzyme E2 M Protein, Tag Free

Cat. No. UBE2M-10HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant full length Human/Mouse/Rat ubiquitin conjugating enzyme E2 M Protein without tag was expressed in E. coli.
Species	Human/Mouse/Rat
Source	E.coli
ProteinLength	1-183aa
Description	Ubiquitin-conjugating Enzyme E2M (UBE2M), also known as Ubiquitin-conjugating Enzyme 12 (Ubc12), is a ubiquitously expressed protein with a predicted molecular weight of 20 kDa. UBE2M/Ubc12 is highly conserved, and the human ortholog shares 100% amino acid identity with mouse and rat UBE2M. UBE2M/Ubc12 mediates conjugation of the Ubiquitin-like protein Neural Precursor Cell Expressed, Developmentally Down-regulated 8 (NEDD8) to substrate proteins. Neddylation requires the coordinated activities of UBE2M/Ubc12 and the APPBPI/UBA3 heterodimer, a NEDD8-activating (E1) enzyme. The NEDD8 pathway is essential for the viability of many organisms and plays important roles in morphogenesis and cell cycle progression. UBE2M/Ubc12-dependent neddylation modulates the levels of p27/Kip1, beta-Catenin, Cdc53/Cul1, and other members of the Cullin family.
Tag	Non
Bio-activity	Recombinant Human UBE2M/Ubc12 is a member of the NEDD8-conjugating (E2)

 Tel: 1-631-559-9269 1-516-512-3133

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 45-1 Ramsey Road, Shirley, NY 11967, USA

enzyme family that receives NEDD8 from a NEDD8-activating (E1) enzyme and subsequently interacts with a NEDD8 ligase (E3) to conjugate NEDD8 to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human UBE2M/Ubc12 concentration of 0.1-1 μ M.

Molecular Mass	21 kDa
Purity	> 95%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain.
Storage	Store the unopened product at -70 centigrade. Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Do not use past expiration date.
Storage Buffer	Supplied as a solution in HEPES, NaCl, TCEP and Glycerol.
Shipping	The product is shipped with dry ice or equivalent.
References	1. Gong, L. et al. (1999) J. Biol. Chem. 274:12036. 2. Huang, D.T. et al. (2005) Mol. Cell 17:341. 3. Ohki, Y. et al. (2009) Biochem. Biophys. Res. Commun. 381:443.

GENE INFORMATION

Gene Name	BE2M ubiquitin conjugating enzyme E2 M [Homo sapiens (human)]
Official Symbol	UBE2M
Synonyms	UBE2M; ubiquitin-conjugating enzyme E2M; ubiquitin conjugating enzyme E2M (homologous to yeast UBC12) , ubiquitin conjugating enzyme E2M (UBC12 homolog, yeast); NEDD8-conjugating enzyme Ubc12; hUbc12; UBC12; yeast UBC12 homolog;

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NEDD8 protein ligase; NEDD8 carrier protein; ubiquitin-protein ligase M; ubiquitin carrier protein M; ubiquitin-conjugating enzyme E2M (UBC12 homolog, yeast); UBC-RS2

Gene ID 9040

mRNA Refseq NM_003969

Protein Refseq NP_003960

MIM 603173

UniProt ID P61081

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