

## 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

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Active Recombinant full length Human/Mouse/Rat ubiquitin conjugating enzyme E2 M Protein without tag was expressed in E. coli.  |
| <b>Species</b>          | Human/Mouse/Rat   |
| <b>Source</b>           | E.coli  |
| <b>ProteinLength</b>    | 1-183aa   |
| <b>Description</b>      | 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. |
| <b>Tag</b>              | Non   |
| <b>Bio-activity</b>     | Recombinant Human UBE2M/Ubc12 is a member of the NEDD8-conjugating (E2)   |

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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  $\mu$ 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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