

Recombinant Full Length Mouse Uba5 Protein, Myc/DDK-tagged

Cat. No. Uba5-6767M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length ubiquitin-like modifier activating enzyme 5 (Uba5), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	E1-like enzyme which specifically catalyzes the first step in ufmylation. Activates UFM1 by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding a UFM1-E1 thioester and free AMP. Activates UFM1 via a trans-binding mechanism, in which UFM1 interacts with distinct sites in both subunits of the UBA5 homodimer. Trans-binding also promotes stabilization of the UBA5 homodimer, and enhances ATP-binding. Transfer of UFM1 from UBA5 to the E2-like enzyme UFC1 also takes place using a trans mechanism. Ufmylation is involved in reticulophagy (also called ER-phagy) induced in response to endoplasmic reticulum stress. Ufmylation is essential for erythroid differentiation of both megakaryocytes and erythrocytes.
Molecular Mass	44.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
GENE INFORMATION	
Gene Name	Uba5 ubiquitin-like modifier activating enzyme 5 [Mus musculus (house mouse)]
Official Symbol	Uba5
Synonyms	UBA5; ubiquitin-like modifier activating enzyme 5; ubiquitin-like modifier-activating enzyme 5; UFM1-activating enzyme; ubiquitin-activating enzyme 5; ubiquitin-activating enzyme E1-domain containing 1; ubiquitin-activating enzyme E1 domain-containing protein 1; Ube1dc1; AW240750; 5730525G14Rik
Gene ID	66663
mRNA Refseq	NM_025692
Protein Refseq	NP_079968
UniProt ID	Q8VE47