

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

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

## SPECIFICATION

<b>Product Overview</b>	Purified recombinant protein of mouse full-length ubiquitin-like modifier activating enzyme 5 (Uba5), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
<b>Species</b>	Mouse
<b>Source</b>	HEK293
<b>Description</b>	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.
<b>Molecular Mass</b>	44.8 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Stability</b>	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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<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	Uba5 ubiquitin-like modifier activating enzyme 5 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Uba5
<b>Synonyms</b>	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
<b>Gene ID</b>	66663
<b>mRNA Refseq</b>	NM_025692
<b>Protein Refseq</b>	NP_079968
<b>UniProt ID</b>	Q8VE47

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