

Recombinant Mouse Ddrgk1 Protein, Myc/DDK-tagged

Cat. No. Ddrgk1-2497M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length DDRGK domain containing 1 (Ddrgk1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Substrate adapter for ufmylation, the covalent attachment of the ubiquitin-like modifier UFM1 to substrate proteins, which plays a key role in reticulophagy (also called ER-phagy). In response to endoplasmic reticulum stress, promotes recruitment of the E3 UFM1-protein ligase UFL1 to the endoplasmic reticulum membrane: in turn, UFL1 mediates ufmylation of proteins such as RPN1 and RPL26/uL24, promoting reticulophagy of endoplasmic reticulum sheets. Ufmylation-dependent reticulophagy inhibits the unfolded protein response (UPR) by regulating ERN1/IRE1-alpha stability. Ufmylation in response to endoplasmic reticulum stress is essential for processes such as hematopoiesis or inflammatory response. Required for TRIP4 ufmylation, thereby regulating nuclear receptors-mediated transcription. May play a role in NF-kappa-B-mediated transcription through regulation of the phosphorylation and the degradation of NFKBIA, the inhibitor of NF-kappa-B. Plays a role in cartilage development through SOX9, inhibiting the ubiquitin-mediated proteasomal degradation of this transcriptional regulator.
Molecular Mass	36 kDa

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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.
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	Ddrgk1 DDRGK domain containing 1 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Ddrgk1
Synonyms	DDRGK1; DDRGK domain containing 1; DDRGK domain-containing protein 1; UFM1-binding protein 1 containing a PCI domain; Ufbp1; AI326138; RP23-100C5.9; 1110001I20Rik; 2600009E05Rik
Gene ID	77006
mRNA Refseq	NM_029832
Protein Refseq	NP_084108
UniProt ID	Q80WW9

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