Recombinant Mouse Phlpp1 Protein, Myc/DDK-tagged

Cat. No. Phlpp1-4842M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length PH domain and leucine rich repeat protein phosphatase 1 (Phlpp1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Protein phosphatase involved in regulation of Akt and PKC signaling. Mediates dephosphorylation in the C-terminal domain hydrophobic motif of members of the AGC Ser/Thr protein kinase family; specifically acts on 'Ser-473' of AKT2 and AKT3, 'Ser-660' of PRKCB and 'Ser-657' of PRKCA. Isoform 2 seems to have a major role in regulating Akt signaling in hippocampal neurons. Akt regulates the balance between cell survival and apoptosis through a cascade that primarily alters the function of transcription factors that regulate pro- and antiapoptotic genes. Dephosphorylation of 'Ser-473' of Akt triggers apoptosis and suppression of tumor growth. Dephosphorylation of PRKCA and PRKCB leads to their destabilization and degradation. Dephosphorylates STK4 on 'Thr-387' leading to STK4 activation and apoptosis. Dephosphorylates RPS6KB1 and is involved in regulation of cap-dependent translation. Inhibits cancer cell proliferation and may act as a tumor suppressor. Dephosphorylates RAF1 inhibiting its kinase activity. May act as a negative regulator of K-Ras signaling in membrane rafts. Involved in the hippocampus-dependent long-term memory formation Involved in circadian control by regulating the consolidation of circadian periodicity after resetting Involved in

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	development and function of regulatory T-cells
Molecular Mass	182.8 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.
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	Phlpp1 PH domain and leucine rich repeat protein phosphatase 1 [Mus musculus (house mouse)]
Official Symbol	Phlpp1
Synonyms	PHLPP1; PH domain and leucine rich repeat protein phosphatase 1; PH domain leucine-rich repeat-containing protein phosphatase 1; PH domain-containing family E member 1; suprachiasmatic nucleus circadian oscillatory protein; pleckstrin homology domain-containing family E member 1; pleckstrin homology domain containing, family E (with leucine rich repeats) member 1; SCOP; Phlpp; Plekhe1; AI836256; mKIAA0606
Gene ID	98432

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

mRNA Refseq	NM_133821
Protein Refseq	NP_598582
UniProt ID	Q8CHE4

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA