

Recombinant Mouse Ptpn2 Protein, Myc/DDK-tagged

Cat. No. Ptpn2-5249M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length protein tyrosine phosphatase, receptor type, N polypeptide 2 (Ptpn2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Plays a role in vesicle-mediated secretory processes. Required for normal accumulation of secretory vesicles in hippocampus, pituitary and pancreatic islets. Required for the accumulation of normal levels of insulin-containing vesicles and preventing their degradation. Plays a role in insulin secretion in response to glucose stimuli. Required for normal accumulation of the neurotransmitters norepinephrine, dopamine and serotonin in the brain. In females, but not in males, required for normal accumulation and secretion of pituitary hormones, such as luteinizing hormone (LH) and follicle-stimulating hormone (FSH). Required to maintain normal levels of renin expression and renin release. May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization. Has phosphatidylinositol phosphatase activity; the PIPase activity is involved in its ability to regulate insulin secretion. Can dephosphorylate phosphatidylinositol 4,5-biphosphate (PI(4,5)P2), phosphatidylinositol 5-phosphate and phosphatidylinositol 3-phosphate. Regulates PI(4,5)P2 level in the plasma membrane and localization of cofilin at the plasma membrane and thus is indirectly involved in regulation of actin dynamics related to cell migration and metastasis; upon hydrolyzation of PI(4,5)P2 cofilin is released from

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the plasma membrane and acts in the cytoplasm in severing F-actin filaments.

Molecular Mass	111.6 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	Ptprn2 protein tyrosine phosphatase, receptor type, N polypeptide 2 [Mus musculus (house mouse)]
Official Symbol	Ptprn2
Synonyms	PTPRN2; protein tyrosine phosphatase, receptor type, N polypeptide 2; receptor-type tyrosine-protein phosphatase N2; R-PTP-N2; IA-2 beta; PTP IA-2beta; protein tyrosine phosphatase-NP; Phol; PTP-NP; IA2beta; phogrin; mKIAA0387; 4930425H11Rik; KIAA0387
Gene ID	19276
mRNA Refseq	NM_011215

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Protein Refseq	NP_035345
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UniProt ID	P80560
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