

## 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)P<sub>2</sub>), phosphatidylinositol 5-phosphate and phosphatidylinositol 3-phosphate. Regulates PI(4,5)P<sub>2</sub> 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)P<sub>2</sub> cofilin is released from

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

<b>Molecular Mass</b>	111.6 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.
<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.

## GENE INFORMATION

<b>Gene Name</b>	Ptprn2 protein tyrosine phosphatase, receptor type, N polypeptide 2 [ Mus musculus (house mouse) ]
<b>Official Symbol</b>	Ptprn2
<b>Synonyms</b>	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
<b>Gene ID</b>	19276
<b>mRNA Refseq</b>	NM_011215

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**Protein Refseq** NP\_035345

**UniProt ID** P80560

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