

Product datasheet for **MC223149**

Ptprn2 (NM_011215) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ptprn2 (NM_011215) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ptprn2
Synonyms: 4930425H11Rik; IA2beta; mKIAA0387; phogrin; Phol; PTP-NP
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223149 representing NM_011215
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCCCGCTCCCGCTTTGCTGCTGCTGCTACCGCCCGCTGCCTCGCGCTCTGCCGCC
CCGCGTCTGCCCGCGCCGCGCAGCTCCCGGGCGCCTGGGATGCTTGTGGAGGATGGCTGTGTGGATC
ACTGGAGACCTGTGTGAACGATGGTGTGTTGGAAGATGTCAAAGGTTCCGGTATGGACACTTACCGA
TATGAGGTACCACAGGAGCCCTGCTGCACCTGAAGGTACCTTACAGAAGCTCTCCCGTACAGGTTTCA
CGTGGCAAGATGACTATACCCAGCGTGTGATTGCCAGGAGCTTGCAAACCTCCCAAGGCCACCTATG
GCATGGGGAAGCGTCCGGCCAGCCAGGTCTTACAACAGAATGCTGACAATGAAAAATGGTTTCAGTCTG
GAGAGGGAGGTGGCCCTGGCCAAGACCCTTCGGCGCTATCTGCCCTACCTGGAGCTTCTGTCCCAGACCC
CAACAGCAAAATGCACACTCTAGGATAGACCATGAGACTCGTCCAGCCAAGGTGAAGACTTTCCTTGA
GAACATCTGACCTACGTGGCCACACATCAGCACTGACCTATCTCTGCAACCCGGGCCAAGTATCCT
GATAACCTTCTGCGGCCCTTTAGCCGGCTCCAGCCAGATGAGCTCAGCCCAAGGTAGACGGTGCATAG
ACAAACAGAAGCTGATTGCAGCACTGGGCGCTACACTGCTCAGAGGCTTCTGGAGAAAATGACCAGA
GCCACGGTACCTTGTACATGGTTCCGCGAGAGCACCAAGGCCATTCTCAGCAACTGCTTTGTCTCAGAGA
TGGCCTCCACCTCCTGGAGAGCGCAAAGACTCCCCGAGTATGGATGATGACACACTCCTGCAGAGTCTCC
TGAAGGATTTGCAGCAGAACTCTGAAGTGGACCGCCTGGGCCCTGAAGGAGGAGAAAAGCAGACTCAGT
TGCTGGAGCCATACAAAGTATCCTGCAGAGGGAAGCCAAAGAAAGCCACGGGAGAGGGGTGAAGGACAG
CCAAGAGAGCAGACAGATGCCCCAGAGACAATGCTTCAAGATCACAGACTATCAGAGGTGGATGACCCAG
TGTACAAGGAGGTCAACCGTCTGAGCTTCCAGCTTGGGGACCTTGAAGGACTATGGGTCTCTCTCTT
ACCTGAAGGTCCCCTTAGAAAAATCCTCCAGAGAAGAGATTAAGAAATCAGAGCAGCCAGAGGAGGTC
TTGTCTTCAAGAGGAGACTGCTGGGGTGGAGCATGTGAGGAGCCGACTTACTCAAAGACCTATTTG
AAAGGAAACCAAACTCAGAGCCCAAGCCAGGAGGCTTGAAGATCAGTTCCAAAACCGAGCTCAGAGTT
GTGGGAGGATGAAGAAAGCCTCAAATTGGCAGCACAGGGACCCCTAGTGAGGAGCCCTACAGCTGGAAGTG
CAGCCTTCTGAGGAACAGCAGGGATACATCCTCACAGGAAACAACCTCTAAGTCCAGAGAAGGGGAAGC



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AGCTGATGGACCAAGTTGCCACATCCTCCGGGTACCTTCCAGCTTCTTTGCAGATATCAAAGTTTTGGG
ACCAGCAGTGACCTTCAAAGTAAGTGCCAAACATCCAAAACATGACAACTGCCGATGTCATCAAGGCTGCA
GCTGACAAACAAAGACCAGCTGGAGAAGGCAACTGGACTGACAATCCTTCAAAGTGGAAATCAGGCCGAAGG
GAAAGCTCAAACCTCTGCCGCATCAGGAAGAGCAAGAGGACTCTACCAAGTTCATTTTGCTCACCTTCT
CTCCATTGCCTGCATCCTGGGGTTCTCCTGGCTTCCAGCCTTGCTACTGCCTCCGCCACAACCTCACAC
TACAAGCTGAAGGACAAGTTGTCTGGACTAGGCCTGACCCAGTGAGGACTGACACTGAAGCCTACCAGG
AGCTATGCCGCCAGCGTATGGCTATTCGTCCACAGGACCCTCTGAGGGACCACATACATCACGCATCAA
CAGCGTCTCATCCAGTTCAGCGATGGGCGATGCCTAGTCTCGGCTCGGAGCAGCACTTCATCCTGG
TCTGAGGAGCCTGTCCAGTCCAACATGGACATCTCTACTGGCCACATGATCCTGGCCTACATGGAAGACC
ATCTGAAGAACAAGAACCCTGGAGAAGGAGTGGGAAGCACTGTGCGCTACCAAGCAGAGCCCAACAG
CTCACTTGTGGCCAGAGAGAGGAGAATGCACCAAGAACCCTCCCTGGCTGTGCTGACCTATGACCAC
TCCAGGATCCTGTTGAAGTCTCAAACAGCCATGGCAGTCCGACTACATCAATGCCAGCCCATATG
ACCATGACCCACGAAACCCGCATACATTGCCACCAAGGCCACTTCCCGCCACGGTGGCCGACTTCTG
GCAGATGGTGTGGAAAGCGGCTGTGCAGTCATTGTGCTGACACCCCTCTCCGAGAAGCGGCTCCGG
CAGTGCCATCACTACTGGCCGATGAAGCTCCAACCTTACCATGTCTACGAGGTCAATCTAGTCTCTG
AGCACATATGGTGCCAGATTTCTGGTGAGAAGCTTTTACCTGAAGAACCTGCAGACCAACGAGACTCG
CACGGTGACCCAGTTCCTTCCCTGAGTTGGTATGACCAGGGAGTCCCTTCTCCACGAGGTCACTCCTG
GATTTCCGAGAAAAGTGAACAAATGCTACCGAGGCCGCTTGTCCGATCATTGTCCATTGCGAGTGACG
GCGCCGGCAGGAGTGGAACTACGTCTGATTGACATGGTTCTCAATAAGATGGCCAAAGGTGCTAAAGA
GATTGATATCGCAGCGACCCTGGAGCACTTGGGGACCAGAGACCAGGCATGGTCCAGACAAAGGAGCAG
TTTGAGTTGCGCTGACAGCTGTGGCTGAGGAGGTGAATGCCATCCTGAAGGCCCTTCCCAGTAG

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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_011215
- Insert Size:** 3006 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
- RefSeq:** [NM_011215.2](#), [NP_035345.2](#)
- RefSeq Size:** 4688 bp
- RefSeq ORF:** 3006 bp
- Locus ID:** 19276

UniProt ID: [P80560](#)

Cytogenetics: 12 62.65 cM

Gene Summary: Plays a role in vesicle-mediated secretory processes (PubMed:21732083). 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 (PubMed:21732083). Plays a role in insulin secretion in response to glucose stimuli (PubMed:15220191, PubMed:16418280, PubMed:21732083). 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) (PubMed:16269463). Required to maintain normal levels of renin expression and renin release (PubMed:19019914). May regulate catalytic active protein-tyrosine phosphatases such as PTPRA through dimerization (PubMed:12364328). 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 (By similarity). 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 the plasma membrane and acts in the cytoplasm in severing F-actin filaments (By similarity).[UniProtKB/Swiss-Prot Function]