

Product datasheet for MC229608

Ptprs (NM_001252456) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ptprs (NM_001252456) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ptprs
Synonyms: AL022616; PTP; PTP-NU3; PTPNU-3; PTPsigma; Ptpt9; R-PTP-S; RPTPsigma
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC229608 representing NM_001252456
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCCACCTGGAGTCCCAGCGTGGTGTCTGTGGTGGTCTGTGGGGCTCTTCTCGTACTGCTGG
 CCAGAGGATGCTTGGCTGAAGAACCACCCAGGTTTATCAGAGAGCCCAAGGATCAGATTGGAGTGTCCGG
 AGGCGTGGCCTCCTTCGTGTGCCAGGCCACGGGTGATCCTAAGCCACGGGTGACCTGGAACAAGAAGGGC
 AAGAAAGTGAACCTCACAGCGCTTCGAGACCATGACTTTGACGAGAGCTCTGGGGCGGTCCCTGAGGATCC
 AGCCACTTCGGACGCCTCGGGATGAGAAGTGTACGAGTGTGTGGCCAGAACTCGGTGGGCGAAATCAC
 AATTTCATGCAAAGCTCACCGTCTTCGAGAGGACCAGTGCCTCCTGGCTTCCCCAACATTGACATGGGC
 CCCCAGTTGAAGGTTGTAGAGCGCACACGCACAGCCACCATGCTCTGTGCTGCCAGCGGGAACCCGGACC
 CTGAGATCACCTGGTTAAAGGACTTCTGCCTGTGGACCCAGTCCAGCAACGGGCGGATCAAGCAGCT
 TCGATCAGGTGCCCTGCAGATTGAGAGCAGCGAGGAGACAGACCAGGCAAGTACGAGTGTGTGGCCACC
 AACAGCGCTGGGTGCGTACTCATCACCTGCCAACCTTACGTGCGAGTCCGCCGTGTGGCCCCACGCT
 TCTCCATCCTGCCATGAGCCACGAGATCATGCCCGGTGGGAATGTGAATACACTTGTGTGGCCCTGGG
 CTCACCCATGCCCTACGTGAAATGGATGCAGGGGCGGAGGACCTGACGCCTGAGGATGACATGCCCGTG
 GGTCCGAAATGTTCTAGAACTCACGGATGTCAAGGACTCAGCTAACTACACTTGTGTGGCCATGTCCAGCC
 TGGGTGTGATCGAGGCCGTGGCCAGATCACTGTAAAATCTCTCCCCAAAGCCCTGGGACTCCTGTGGT
 GACGGAGAACACTGCCACCAGTACACTGTACATGGGACTCGGGCAACCCTGACCCCGTGTCTACTAC
 GTAATTGAGTATAAGTCCAAAAGCCAGGATGGGCCGTATCAGATCAAAGAAGACATCACCACCACGCGCT
 ACAGCATCGGAGGCTGAGCCCCAATTCTGAGTATGAGATCTGGGTGTGAGTGTCAACTCCATTGGCCA
 GGGCCCTCCAGTGAATCGGTGGTACCCGCACAGGTGAGCAGGCACCAGCCAGCGCTCCAGGAATGTT
 CAGGCCCGCATGCTCAGCGCCACCACATGATCGTGCAGTGGGAGGAGCCTGTGGAGCCCAATGGCCTGA
 TCCGTGGTACCCTGTCTACTATACCATGGAGCCGGAACCCAGTGGGCAACTGGCAGAAACACAATGT
 GGACGACAGTCTCCTGACCCTGTGGGAGCCTGCTGGAAGACGAGACCTACACCGTGCAGCTGTCCGC
 TTCACGTCCGTGGGCGACGGACCACTGTGAGCCCATCCAGGTCAAGACCCAGCAGGGAGTTCTCTGGCC



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AGCCCATGAACCTGCGGGCTGAGGCCAAGTCAGAGACCAGCATTGGGCTCTCGTGGAGTGACCACGACA
 GGAGAGTGTACATTAAGTATGAACTGCTCTCCGGGAGGGCGACCGAGGCCGAGAGGTGGGGCAACCTTC
 GACCCAACCACAGCCTTTGTGGTGGAGGACCTCAAGCCAATACGGAGTATGCGTTCCGGCTGGCGGCGC
 GCTCGCCGAGGGCCTGGGCGCCTTACCAGCGGTGCTGCGCCAGCGCACGCTGCAGGCCATCTCCCCAAA
 GAACTTCAAGGTGAAGATGATCATGAAGACTTCAGTGTGCTGAGCTGGGAGTTCCTCCGACAATAAC
 TCACCCACACCCCTACAAGATTCAGTACAATGGGCTCACCTGGATGTGGACGGCCGACGACCAAGAAGC
 TGATCACACACCTCAAGCCACACACCTTCTATAATTTCTGCTACCAACCGTGGCAGCAGCTGGGGGG
 CCTGCAGCAGACGGTCACTGCCAGGACCGCCTTAAACATGCTCAGTGGCAAGCCTAGCGTCGCCCGAAG
 CCCGACAATGACGGTTTCATCGTGGTCTACCTGCCTGATGGCCAGAGTCTGTGACCGTGCAGAATACT
 TCATTGTGATGGTCCCCTTCGGAAGTCTCGAGGTGGCCAGTTCCTGTCTACTAGGTAGTCCAGAGGA
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 AGAAGCAATATGGTGGCTTTGACAACAGGGGCTGGAGCCAGGCCACCGCTATGCCTCTTTGTGCTTGC
 TGTGTTGAGAAGATGAGCCTACATTTGACGCCAGTCCCTTCTCAGACCCCTTCCAGCTGGACAACCCG
 GACCTCAGCCATTGTGGACGGCGAGGAGGGCCTCATCTGGGTGATTGGCCTGTGCTGGCCGTGGTCT
 TCATCATCTGCATCGTGATTGCCATCCTGCTGTACAAGAACAACCTGACAGCAAACGCAAGGACTCAGA
 GCCCCGACCAAAATGCTTACTGAACAATGCCGACCTTGCSCCCATCACCCCAAGGACCTGTGGAATG
 CGACGCATCAACTCCAGACACCAGGTATGCTCAGCCACCACCCATCCCATCAGACATGGCGGAGC
 ACATGGAGAGACTCAAAGCCAACGACAGCCTGAAGCTCTCCAGGAGTACGAGTCCATTGACCCCGGGCA
 GCAATTCACGTGGGAACATTCGAACCTGGAGGCCAACAAGCCCAAGAACCCTATGCCAAGTATCGCC
 TATGACCACTCAGGATCATCTGCAGCCCTAGAAGGCATCATGGGTAGTGATTACATCAATGCCAAT
 ATGTGGACGGCTACCGGGCGCAGAATGCATACATTGCCACGACGGGGCCCTGCCTGAGACTTTGGGA
 CTCTGGCGGATGGTGTGGGAGCAGCATCGGCCACTGTGGTTCATGATGACGCGACTGGAGGAAATCA
 CGGATCAAATGTGACCAATACTGGCCTAACCGAGGACCGAGACATACGGCTTCATCCAGGTCACCCCTAC
 TAGATAACCATGGAGCTGGCTACCTTCTGCGTCAGGACTTTTTCTCTACACAAGAATGGCTTAGCGAGAA
 GCGTGAGGTGCGACATTTCCAGTTCACGGCATGGCCCGACCACGGGGTACCTGAGTACCCACGCCCTTC
 CTGGCATTCTGCGAAGAGTCAAGACCTGCAACCCGCCTGATGCTGGCCCATTTGGTCCACTGCAGCG
 CGGGTGTGGGGCGCACTGGCTGCTTCATCGTAATTGACGCCATGCTAGAGCGCATCAAGACAGAGAAGAC
 CGTGGATGTGATGGACATGTGACTCATGCGGTGCGAGCGCAACTACATGGTGCAGACAGAGGATCAG
 TATGGCTTCATCCAGAGGCGCTGCTGGAGGCTGTGGGCTGCGGCAATACCGAGGTCCTGCTCGCAGCC
 TCTACACCTACATCCAGAAGCTGGCCAGGTGGAGCCTGGCGAGCACGTACGGGCATGGAGCTTGAGTT
 CAAGAGGCTCGCCAGTTCGAAGGCACACTTCGCGCTTCATCACCGCCAGCCTGCCTGCAACAAGTTT
 AAGAACCAGTGGTGAACATCCTGCCGTACGAGAGCTCGCGTGTCTGCCTGCAGCCATCCGCGGTGTGG
 AGGGCTCTGACTACATCAATGCCAGCTTATCGACGGCTATAGACAGCAGAAAAGCCTACATTGCAACACA
 GGGGCCACTGGCAGAGACCACAGAGGACTTCTGGCGAGCTCTGTGGGAGAAACCTACTATTGTGCGTA
 ATGCTACCAAGTCCGAGAAATGGGCCGGGAAAAGTGCCACCAGTACTGGCCAGCCGAGCGCTCTGCC
 GCTACCAAGTACTTTGTGGTTGACCCGATGGCAGAGTATAACATGCCACAGTACATTCTGCGTGAGTTAA
 GGTACAGATGCCCGGATGGCCAGTCCCGGACCGTCCGACAGTTCAGTTCACGGACTGGCCAGAGCAG
 GGTGCACCAAGTCAAGGGAAGGCTTATTGACTTCATCGCCAAGTGCATAAGACCAAGGAGCAGTTTG
 GCCAGGACGGACCCATCTCAGTGCAGTGCAGCGCCGAGTGGGACGAGCCGAGTGTTCATCACCTGAG
 CATCGTCTTGAGCGGATGCGCTACGAGGGCGTGGTGGACATTTTCCAGACAGTGAAGGTGCTTCGGACC
 CAGAGGCTGCCATGGTGCAGACAGAGGACGAGTACCAGTTCTGCTTCCAGGCGCTTTGGAATACCTGG
 GCAGTTTTGATCATTATGCAACA

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_001252456
 Insert Size: 4506 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001252456.1</u> , <u>NP_001239385.1</u>
RefSeq Size:	5618 bp
RefSeq ORF:	4506 bp
Locus ID:	19280
UniProt ID:	<u>B0V2N1</u>
Cytogenetics:	17 29.32 cM

Gene Summary:

Cell surface receptor that binds to glycosaminoglycans, including chondroitin sulfate proteoglycans and heparan sulfate proteoglycans (PubMed:19833921, PubMed:21454754, PubMed:22406547). Binding to chondroitin sulfate and heparan sulfate proteoglycans has opposite effects on PTPRS oligomerization and regulation of neurite outgrowth (PubMed:21454754). Contributes to the inhibition of neurite and axonal outgrowth by chondroitin sulfate proteoglycans, also after nerve transection (PubMed:15797710, PubMed:19833921, PubMed:19780196, PubMed:21454754, PubMed:22519304, PubMed:22406547). Plays a role in stimulating neurite outgrowth in response to the heparan sulfate proteoglycan GPC2 (PubMed:21454754). Required for normal brain development, especially for normal development of the pituitary gland and the olfactory bulb (PubMed:10080191). Functions as tyrosine phosphatase (PubMed:7529177). Mediates dephosphorylation of NTRK1, NTRK2 and NTRK3 (By similarity). Plays a role in down-regulation of signaling cascades that lead to the activation of Akt and MAP kinases (PubMed:15797710). Down-regulates TLR9-mediated activation of NF-kappa-B, as well as production of TNF, interferon alpha and interferon beta (PubMed:26231120). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (4) differs in the 5' UTR and lacks four consecutive exons in the coding region, but maintains the reading frame, compared to variant 1. Variants 2 and 4 encode the same isoform (2), which is shorter than isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.