

Product datasheet for MC224572

Ptprs (BC052462) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ptprs (BC052462) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Ptprs
Synonyms:	PTP-NU3, PTPsigma
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>BC052462 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGCCACCTGGAGTCCCAGCGTGGTGTCTGTGGTGGTCTGTGGGGCTCTTCTCGTACTGCTGG
CCAGAGGATGCTTGGCTGAAGAACCACCCAGGTTTATCAGAGAGCCCAAGGATCAGATTGGAGTGTCCGG
AGGCGTGGCCTCCTTCGTGTGCCAGGCCACGGGTGATCCTAAGCCACGGGTGACCTGGAACAAGAAGGGC
AAGAAAGTGAACCTCACAGCGCTTCGAGACCATGACTTTGACGAGAGCTCTGGGGCGTCCCTGAGGATCC
AGCCACTTCGGACGCCTCGGGATGAGAACGTGTACGAGTGTGTGGCCAGAACTCGGTGGGCGAAATCAC
AATTCTATGCAAAGCTCACCGTCTTCGAGAGGACCAGTGCCTCCTGGCTTCCCCAACATTGACATGGGC
CCCCAGTTGAAGGTTGTAGAGCGCACACGCACAGCCACCATGCTCTGTGCTGCCAGCGGGAACCCGGACC
CTGAGATCACCTGGTTTAAAGACTTCTGCCTGTGGACCCAGTCCAGCAACGGGCGGATCAAGCAGCT
TCGATCAGGTGCCCTGCAGATTGAGAGCAGCGAGGAGACAGACCAGGCAAGTACGAGTGTGTGGCCACC
AACAGCGCTGGGTGCGTACTCATCACCTGCCAACCTCTACGTGCGAGTCCGCCGTGTGGCCCCACGCT
TCTCCATCCTGCCATGAGCCACGAGATCATGCCCGGTGGGAATGTGAATACACTTGTGTGGCCGTGGG
CTCACCCATGCCCTACGTGAAATGGATGCAGGGGCGGAGGACCTGACGCCTGAGGATGACATGCCCGTG
GGTTCGGAATGTTCTAGAACTCACGGATGTCAAGGACTCAGCTAACTACACTTGTGTGGCCATGTCCAGCC
TGGGTGTGATCGAGGCCGTGGCCAGATCACTGTAAAATCTCTCCCAAAGCCCTGGGACTCCTGTGGT
GACGGAGAACACTGCCACCAGTACACTGTACATGGGACTCGGGCAACCCTGACCCCGTGTCTACTAC
GTAATTGAGTATAAGTCCAAAAGCCAGGATGGGCCGTATCAGATCAAAGAAGACATCACCACCACGCGCT
ACAGCATCGGAGGCTGAGCCCCAATTCTGAGTATGAGATCTGGGTGTGAGTGTCAACTCCATTGGCCA
GGGCCCTCCAGTGAATCGGTGGTGACCCGCACAGGTGAGCAGGCACCAGCCAGCGCTCCAGGAATGTT
CAGGCCCGCATGCTCAGCGCCACCACCATGATCGTGCAGTGGGAGGAGCCTGTGGAGCCCAATGGCCTGA
TCCGTGGTACCCTGTCTACTATACCATGGAGCCGGAACCCAGTGGGCAACTGGCAGAAACACAATGT
GGACGACAGTCTCCTGACCCTGTGGGAGCCTGCTGGAAGACGAGACCTACACCGTGCAGCTGTGCTGCC
TTCACGTCCGTGGGCGACGGACCACTGTGAGCCCATCCAGGTCAAGACCCAGCAGGGAGTTCTCTGGCC



[View online »](#)

AGCCCATGAACCTGCGGGCTGAGGCAAGTCAGAGACCAGCATTGGGCTCTCGTGGAGTGACCACGACA
 GGAGAGTGCATTAAGTATGAACTGCTCTCCGGGAGGGCGACCGAGGCCGAGAGGTGGGGCAACCTTC
 GACCCAACCACAGCCTTTGTGGTGGAGGACCTCAAGCCAATACGGAGTATGCGTTCCGGCTGGCGGCGC
 GCTCGCCGAGGGCCTGGGCGCCTTACCAGCGGTGCTGCGCCAGCGCACGCTGCAGGCCATCTCCCCAA
 GAACCTCAAGGTGAAGATGATCATGAAGACTTCAGTGTGCTGAGCTGGGAGTCCCCGACAATAAAC
 TCACCCACACCCCTACAAGATTCAGTACAATGGGCTCACCTGGATGTGGACGGCCGACGACCAAGAAGC
 TGATCACACACCTCAAGCCACACACCTTCTATAATTTCTGCTACCAACCGTGGCAGCAGCTGGGGGG
 CCTGCAGCAGACGGTCACTGCCAGGACCGCCTTAAACATGCTCAGTGGCAAGCCTAGCGTCGCCCGAAG
 CCCGACAATGACGGTTTCATCGTGGTCTACCTGCCTGATGGCCAGAGTCTGTGACCGTGCAGAATACT
 TCATTGTGATGGTCCCCTTCGGAAGTCTCGAGGTGGCCAGTTCCTGTCTACTAGGTAGTCCAGAGGA
 CATGGATCTGGAGGAGCTCATCCAGGACATCTCCCGGCTGCAGAGGCGCAGCCTGCGCCACTCCAGACAG
 CTGGAGGTGCCTCGGCCCTACATCGCCGCTCGATTCTCCATCCTGCCAGCTGTCTCCATCCTGGGAACC
 AGAAGCAATATGGTGGCTTTGACAACAGGGGCTGGAGCCAGGCCACCGCTATGCCTCTTTGTGCTTGC
 TGTGTTGAGAAGATGAGCCTACATTTGACGCCAGTCCCTTCTCAGACCCCTTCCAGCTGGACAACCCG
 GACCTCAGCCATTGTGGACGGCGAGGAGGGCCTCATCTGGGTGATTGGCCTGTGCTGGCCGTGGTCT
 TCATCATCTGCATCGTGATTGCCATCCTGCTGTACAAGAACAACCTGACAGCAAACGCAAGGACTCAGA
 GCCCCGACCAAAATGCTTACTGAACAATGCCGACCTTGCCCCCATCACCCCAAGGACCTGTGGAAATG
 CGACGCATCAACTCCAGACACCAGGTATGCTCAGCCACCACCCATCCCATCAGACATGGCGGAGC
 ACATGGAGAGACTCAAAGCCAACGACAGCCTGAAGCTCTCCAGGAGTACGAGTCCATTGACCCCGGGCA
 GCAATTCACGTGGGAACATTCGAACCTGGAGGCCAACAAGCCCAAGAACCCTATGCCAAGTATCGCC
 TATGACCACTCAGGATCATCTGCAGCCCTAGAAGGCATCATGGGTAGTGATTACATCAATGCCAACT
 ATGTGGACGGCTACCGGGCGCAGAATGCATACATTGCCACGACGGGGCCCTGCCTGAGAGCTTTGGGA
 CTCTGGCGGATGGTGTGGGAGCAGCATCGGCCACTGTGGTTCATGATGACGCGACTGGAGGAAATCA
 CGGATCAAATGTGACCAATACTGGCCTAACCGAGGACCGAGACATACGGCTTCATCCAGGTCACCCCTAC
 TAGATAACCATGGAGCTGGCTACCTTCTGCGTCAGGACTTTTTCTCTACACAAGAATGGCTTAGCGAGAA
 GCGTGAGGTGCGACATTTCCAGTTCACGGCATGGCCCGACCACGGGGTACCTGAGTACCCACGCCCTTC
 CTGGCATTCTGCGAAGAGTCAAGACCTGCAACCCGCCTGATGCTGGCCCCATTGGTCCACTGCAGCG
 CGGGTGTGGGGCGCACTGGCTGCTTCATCGTAATTGACGCCATGCTAGAGCGCATCAAGACAGAGAAGAC
 CGTGGATGTGATGGACATGTGACTCATGCGGTGCGAGCGCAACTACATGGTGCAGACAGAGGATCAG
 TATGGCTTCATCCAGAGGCGCTGCTGGAGGCTGTGGGCTGCGGCAATACCGAGGTCCTGCTCGCAGCC
 TCTACACCTACATCCAGAAGCTGGCCAGGTGGAGCCTGGCGAGCACGTACGGGCATGGAGCTTGAGTT
 CAAGAGGCTCGCCAGTTCGAAGGCACACTTCGCGCTTCATCACCGCCAGCCTGCCTGCAACAAGTTT
 AAGAACCAGTGGTGAACATCCTGCCGTACGAGAGCTCGCGTGTCTGCCTGCAGCCATCCGCGGTGTGG
 AGGGCTCTGACTACATCAATGCCAGCTTATCGACGGCTATAGACAGCAGAAAAGCCTACATTGCAACACA
 GGGGCCACTGGCAGAGACCACAGAGGACTTCTGGCGAGCTCTGTGGGAGAAACCTACTATTGTGCGTA
 ATGCTACCAAGTCCGAGAAATGGGCCGGGAAAAGTGCCACCAGTACTGGCCAGCCGAGCGCTCTGCC
 GCTACCAAGTACTTTGTGGTTGACCCGATGGCAGAGTATAACATGCCACAGTACATTCTGCGTGAGTTAA
 GGTACAGATGCCCGGGATGGCCAGTCCCGGACCGTCCGACAGTCCAGTTCACGGACTGGCCAGAGCAG
 GGTGCACCAAGTCAGGGGAAGGCTTATTGACTTCATCGCCAAGTGCATAAGACCAAGGAGCAGTTTG
 GCCAGGACGGACCCATCTCAGTGCATGACGCGCGGAGTGGGCAGGACCGGAGTGTTCATCACCTGAG
 CATCGTCTTGAGCGGATGCGCTACGAGGGCGTGGTGGACATTTTCCAGACAGTGAAGGTCTTCGGACC
 CAGAGGCTGCCATGGTGCAGACAGAGGACGAGTACCAGTTCTGCTTCCAGGCGGCTTTGGAATACCTGG
 GCAGTTTTGATCATTATGCAACATAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: BC052462
 Insert Size: 4506 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

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: [BC052462](#), [AAH52462](#)

RefSeq Size: 5588 bp

RefSeq ORF: 4505 bp

Locus ID: 19280

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]