

Product datasheet for **MC225110**

Ptprb (NM_029928) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ptprb (NM_029928) Mouse Untagged Clone
Tag: Tag Free
Symbol: Ptprb
Synonyms: 3230402H02Rik; C130094E24; Ptpz; Rptpb; VE-PTP; Veptp
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC225110 representing NM_029928
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGAGGCATGGAGCCCTAACGGCCTTGTGGATAAACTGAGCGTCGTCAGACTGGAGTGGCAGAGC
 AAGTGAATGTAACCTCACACTGTTGGAGTCCAGGCTCTAGCTTGTCCAGCTATCCAGTGGAGGAC
 TTTCCGCTCACCCTGTAACCTTAGCCTCATCTACAGCAGTGATACCTCGGGGCCATGTGGTCCATCCT
 ATTCGGATAGACAACCTTACCTACGGATGTAACCCCAAGGATTTACAAGCAGGGACCGTCTATAACTTCA
 GGATTGTTTCTCTGGATGGAGAAGAGAGACTCTGGTCTTACAGACAGATCCGTTGCCTCCTGCCAGGTT
 TGAAGTCAATCGGGAGAAAACAGCATCAACCACCTGCAGGTCGGTGGACTCCCTCTTCTGGAAAAGTC
 TCCTGGTATGAGGTGCAATTATTTGATCATAAACAATCAAAAGATACAAGAAGTCCAAGTTCAAGAAAGTA
 CCACCTGGAGCCAATACTTTTCTGAACCTCACTGAGGGTAACAGTTACAAAGTTGCCATCACAGCTGT
 TTCGGGAGAAAAGCGCTCCTTCCGGTGTATATCAATGGCTCTACAGTACCATCTCCAGTGAAGATCTT
 GGCATTTCCCAATCCTAATTCTCCTAATTTCCCTGGTCTCGTGGTTCTGGAAATGTGGAACAATACA
 GGCTGGTGCTAATGGATAAAGGGGCCATCGTTCAAGACAAAACGTGGACAGGCGTGATACTTCTTATGC
 TTTTCACGAGCTGACCCCTGGCCACCTCTACAACCTCACTATTGTACCATGGCCTCGGGACTGCAAAAC
 TCCAGGTGAAAACCTGGTGAAGACCGCTCCCATGGAAGTCTCAAATCTGAAGGTGACAAAATGACGGGAGGT
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 ACCCTGGCTGTCTCCAGCTTCGCGTCAAACACGCTAACGAAATTCCTGAGGATCACGTGGCGGGCC
 CCTTAGGCGAATGGGAGAAATACATCATTTCTGTTGATGGACAGAGAGCTTGGTTCATCCAAAGTCAC



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TCTCAAAGATGCCAAAGAATCACTTTTACAGACCTGATGCCTGGACGGAATTACAAGGCTACTGTAC
TAGCATGAGTGGAGATTTAAAACAGTCATCTTCAATCAAAGGAAGAACAGTGCCTGCCAGGTGACTGAC
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TGTCCATCAAGGTGCAGTCGGCCGCATGACCAGTGAAGTGGTTGAAGATAGCACCATCACCATGATAGA
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AACTTTACTGTCAACTGCAGCTGGTTCAGCGACACCAACGGAGCGGTTAAATACTTTGCTGTGGTGGTGA
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TCTTGGCCCATAAAGATCAATCAGTTTGAAGGGCATTTCATGAAGCTGCAGGCAGACTCCAACTACCTTC
TATCCAAGGAATATGAGGACTTAAAAGCAGTGGGTAGAAGCCAGTCAATGTGACATTGCCCTTGCCTGA

GAATCGAGGGAAAAATCGATACAACAACATATTGCCTTATGATGCCTCAAGAGTGAAGCTCTGCAATGTC
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 TCGCCACTCAGGGACCGCTTCCAGGCACCAAGGATGACTTCTGGAAGATGGCGTGGGAGCAGAACGTTCA
 CAACATCGTCATGGTGACCCAGTGTGTTGAAAAGGGCCGAGTGAAGTGTGACCATTACTGGCCAGCAGAC
 CAGGACCCCTCTACTACGGTGTCTCATCCTACAGATGGTCTCGGAGTCCGTGCTCCCCGAGTGGACCA
 TCGAGGAGTTTAAAGATATGCAGTGAAGAACAGTTGGATGCACACAGACTCATCCGTCACCTTCACTACAC
 GGTTGTGGCCAGACCATGGGGTCCCAGAGACCACCCAGTCCCTGATCCAATTTGTGAGGACAGTCAGGGAC
 TACATCAACAGAAGCCCCGGGGCTGGGCCACCGTAGTGCACTGCAGCGCTGGTGTGGGCAGAACAGGGA
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 GCATGACCTAAGACTCCACAGGGTTCACATGGTCCAGACCGAGTGTCAATATGTGTATCTGCATCAGTGT
 GTAAGAGACGTCCTCAGAGCAAAGAAACTGCGGAACGAGCAAGAGAACCCCTGTTTCCGATTTATGAGA
 ATGTGAATCCAGAGTATCACAGAGATGCAATCTACTCGAGACAT**TAA**

ACGGGTACGGCGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_029928

Insert Size: 5997 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: [NM_029928.2](#), [NP_084204.2](#)

RefSeq Size: 11912 bp

RefSeq ORF: 5997 bp

Locus ID: 19263

UniProt ID: [B2RU80](#)

Cytogenetics: 10 D2

Gene Summary: Plays an important role in blood vessel remodeling and angiogenesis. Not necessary for the initial formation of blood vessels, but is essential for their maintenance and remodeling. Can induce dephosphorylation of TEK/TIE2, CDH5/VE-cadherin and KDR/VEGFR-2. Regulates angiopoietin-TIE2 signaling in endothelial cells. Acts as a negative regulator of TIE2, and controls TIE2 driven endothelial cell proliferation, which in turn affects blood vessel remodeling during embryonic development and determines blood vessel size during perinatal growth. Essential for the maintenance of endothelial cell contact integrity and for the adhesive function of VE-cadherin in endothelial cells and this requires the presence of plakoglobin.[UniProtKB/Swiss-Prot Function]