

Recombinant Mouse PTPRV Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51495

Size: 10ug, 100ug

Protein Name: Receptor-type tyrosine-protein phosphatase V (R-PTP-V) (EC 3.1.3.48)
(Embryonic stem cell protein-tyrosine phosphatase) (ES cell phosphatase)

Synonym: Ptprv, Esp

UniProt ID: P70289

UniProt Link: www.uniprot.org/uniprotkb/P70289/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1705 AA

Molecular Weight: 187 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MRPLILLAALLWLQDSLAQEDVCSSLDGSPDRQGGGPPLSVSVTSRGRPTSLFLSWVAAEPGGFDY
ALCLRAMNLSGFPEGQQLQAHTNESSFEFHGLVPGSRYQLELTVLRPCWQNVITITLTARTAPTIVR
GLQLHSTGSPASLEASWSDASGDQDSYQLLLYHPESHTLACNVSVSPDTLSYNFGDLLPGSQYVLE
VITWAGSLHAKTSILQWTEPVPPDHLRVRLALGTSSLQAFWNSSEGATWFHLITDLLEGTNLTQVVR
QGISTHTFLRLSPGTPYQLKICAAAGPHQIWGPNATEWTYPSPDLVLTPLWNLWASWKAGQGA
RDGYVLKLSGPVENTTTLGPEECNAVFPGPLPPGHYTLGLRVLAGPYDAWVEGSIWLAESAARPM
VPGARLWLEGLEATKQPGRRALLYSDAPGLLGNISVSSGATHVTFCLVPGAHYRVDIASSMGDIT
QSLTGYTSPLPPQSLEISRNPSDLTIGWAPAPGQMEGYKVTWHQDGSQRSPGDLVDLGPDISSLT
LKSLVPGSCYTVSAWAWSGNLSDSQKIHSCTRPAPPTNLSLGFHQPATLRASWCHPPGGRDAF
QLRLYRLRPLTLESEKILSQAQNFSAWQLPAGYEFQVQLSTLWGSEESGSANTTGWTPPSAPTLV
NVTSEAPTQLHVSWWHAAGDRSSYQVTLYQESTRTATSIVGPKADSTSFWGLTPGTYKVEAISWA
GPLYTAAANVSAWTYPLTPNELLASMQAGSAVVNLAWPSGPLGRGTCHAQLSDAGHLSWEQPLSL
GQDLLMLRNLIPGHTVSLSVKCRAGPLQASTHPLVLSVEPGPVEDVFCQPEATYLSLNTMTPTGDV
AVCLVEVEQLVPGGSAHFVFQVNTSEDALLPLNLTPTTSYRLSLTVLGGNRQWSRAVTLVCTTSAEV
WHPPELAEAPQVELGTGMGVTVTRGMFGKDDGQIQWYGIIATINMTLAQPSQEAINHTWYDHYRG
HDSYLALLFPNPFYEPWAVPRSWTVPGTEDCDNTQEICNGHLKPGFQYRFSIAAFSRLSSPETIL
AFSAFSEPQASISLVAMPLTVMMGTVVGCIIIVCAVLCLLCRRGLKGPSEKNGFSQELMPYNLWRT
HRPIPSHSFRQSYEAKSARAHQAFFQEFEELKEVGKDQPRLEAEHPANITKNRYPHVLPYDHSRVRL



TQLSGEPHSDYINANFIPGYSHQPQEIATQGGLKKTVEDFWRLVWEQQVHVIIIMLTVMENGRVLCHEH
YWPVNSTPVTTHGHITTHLLAESEDEWTRREFQLQHGAEQKQRRVKQLQFTTWPDSVPEAPSSL
LAFVELVQEEVKATQKGKGPILVHCSAGVGRGTGFVALLPAVRQLEEEQVVDVFNTVYILRLHRPLMIQ
TLSQYIFLHSCLLNKILEGPSDASDSGPIVMNFAQACAKRAANANAGFLKEYRLLKQAIKDETGSLLP
SPDYNQNSIASCHHSQEQLALVEESPADNMLAASLFPGGPSGRDHVVLTGSAGPKELWEMVWEHG
AYVLVSLGLPDTKEKPQDIWPMEMQPIVTDMTVHRVAESNTAGWPSTLIRVIHGDGSGTERQVQCL
QFPHCETGSELPANTLLTFLDAVGQCCSRGNSKKPGTLLSHSSKVTNQLSTFLAMEQLLQQAGTER
TVDVFSVALKQTQACAVKTPPTLEQYIYLYNCLNSALRNRLPRARK

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Receptor-type tyrosine-protein phosphatase V (R-PTP-V) (EC 3.1.3.48) (Embryonic stem cell protein-tyrosine phosphatase) (ES cell phosphatase) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Protein tyrosine phosphatase that acts as a regulator of energy metabolism by mediating dephosphorylation of insulin receptor (Insr) (PubMed:17693256, PubMed:20655470). Prevents decarboxylation of osteocalcin (Bglap and Bglap2) via an indirect mechanism: dephosphorylation of insulin receptor prevents insulin signaling-dependent decarboxylation of osteocalcin, preventing the hormone activity of osteocalcin (PubMed:17693256, PubMed:20655470). May play a role in the maintenance of pluripotency (PubMed:8951793).

Subcellular Localization: Membrane; Single-pass type I membrane protein.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.