

Recombinant Human PTPRJ Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50827

Size: 10ug, 100ug

Protein Name: Receptor-type tyrosine-protein phosphatase eta (Protein-tyrosine phosphatase eta) (R-PTP-eta) (EC 3.1.3.48) (Density-enhanced phosphatase 1) (DEP-1) (HPTP eta) (Protein-tyrosine phosphatase receptor type J) (R-PTP-J) (CD antigen CD148)

Synonym: PTPRJ, DEP1

UniProt ID: Q12913

UniProt Link: www.uniprot.org/uniprotkb/Q12913/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1337 AA

Molecular Weight: 146 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MKPAAREARLPSPGLRWALPLLLLLLRLGQILCAGGTPSPIPDPSVATVATGENGITQISSTAESFH
KQNGTGTPQVETNTSEDGESSGANDSLRTPEQGSNGTDGASQKTPSSTGPSPVFDIKAVSISPTNVI
LTWKSNDTAASEYKYVVKHKMENECTITVVHQPCWNTGLRPATSYVFSITPGIGNETWGDPRVIKVI
TEPIPVSDLRVALTGVRKAALSWSNGNGTASCRVLLESIGSHEELTQDSRLQVNISGLKPGVQYNINP
YLLQSNKTKGDPLGTEGGLDASNTERSRAGSPTAPVHDESLVGPVDPSSGQQSRDTEVLLVGLLEPG
TRYNATVYSQAANGTEGQPQAEFRTNAIQVFDVTAVNISATSLTLIWKVSDNESSNYTYKIHVAGE
TDSSNLNVSEPRVIPGLRSSTFYNTVCPVLGDIETPGFLQVHTPPVPVSDFRVTVVSTTEIGLAW
SSHDAESFQMHITQEGAGNSRVEITTNQSIIGGLFPGTKYCFEIVPKGPNGTEGASRTVCNRTVPSA
VFDIHVVYVTTTEMWLDWKSPDGASEYVYHLVIESKHGNSNHTSTYDKAITLQGLIPGTLYNITISPEVD
HVWGDPNSTAQYTRPSNVSNIDVSTNTTAATLSWQNFDDASPTYSYCLLIEKAGNSSNATQVVTDIG
ITDATVTELIPGSSYTVEIFAQVGDGIKSLEPGRKSFCTDPASMASFDCEVVPKEPALVLKWTCPPGA
NAGFELEVSSGAWNNATHLESCSSENGTEYRTEVTYLNFTSYNISITTVSCGKMAAPTRNTCTTGIT
DPPPPDGSNITSVSHNSVKVKFSGFEASHGPIKAYAVILTTGEAGHPSADVLKYTYEDFKKGASDTY
VTYLIRTEEKGRSQSLSEVLKYEIDVGNESTTLGYNGKLEPLGSYRACVAGFTNITFHPQNKGLIDG
AESYVSFSRYSDAVSLPQDPGVICGAVFGCIFGALVIVTVGGFIFWRKKRKDAKNNVSVFSQIKPKKS
KLIRVENFEAYFKKQQADSNCGFAEEYEDLKLVGISQPKYAAELAENRGKNRYNNVLPYDISRVKLSV
QTHSTDDYINANYMPGYHKKDFIATQGPLPNTLKDFWRMVWEKNVYAIIMLT KCVEQGRTKCEEY



WPSKQAQDYGDITVAMTSEIVLPEWTIRDFTVKNIQTSESHPLRQFHFTSWPDHGVDPDITDILLINFRY
LVRDYMKGSPPEPILVHCSAGVGRTGTFAIDRLIYQIENENTVDVYGIVYDLRMHRPLMVQTEDQY
VFLNQCVLDIRSQKDSKVDLIYQNTTAMTIYENLAPVTTFTGKTNGYIA

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 eta (Protein-tyrosine phosphatase eta) (R-PTP-eta) (EC 3.1.3.48) (Density-enhanced phosphatase 1) (DEP-1) (HPTP eta) (Protein-tyrosine phosphatase receptor type J) (R-PTP-J) (CD antigen CD148) 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: Tyrosine phosphatase which dephosphorylates or contributes to the dephosphorylation of CTNND1, FLT3, PDGFRB, MET, KDR, LYN, SRC, MAPK1, MAPK3, EGFR, TJP1, OCLN, PIK3R1 and PIK3R2 (PubMed:10821867, PubMed:12062403, PubMed:12370829, PubMed:12475979, PubMed:18348712, PubMed:19494114, PubMed:19922411, PubMed:21262971). Plays a role in cell adhesion, migration, proliferation and differentiation (PubMed:12370829, PubMed:14709717, PubMed:16682945, PubMed:19836242). Has a role in megakaryocytes and platelet formation (PubMed:30591527). Involved in vascular development (By similarity). Regulator of macrophage adhesion and spreading (By similarity). Positively affects cell-matrix adhesion (By similarity). Positive regulator of platelet activation and thrombosis. Negative regulator of cell proliferation (PubMed:16682945). Negative regulator of PDGF-stimulated cell migration; through dephosphorylation of PDGFR (PubMed:21091576). Positive regulator of endothelial cell survival, as well as of VEGF-induced SRC and AKT activation; through KDR dephosphorylation (PubMed:18936167). Negative regulator of EGFR signaling pathway; through EGFR dephosphorylation (PubMed:19836242). Enhances the barrier function of epithelial junctions during reassembly (PubMed:19332538). Negatively regulates T-cell receptor (TCR) signaling (PubMed:11259588, PubMed:9531590, PubMed:9780142). Upon T-cell TCR activation, it is up-regulated and excluded from the immunological synapses, while upon T-cell-antigen presenting cells (APC) disengagement, it is no longer excluded and can dephosphorylate PLCG1 and LAT to down-regulate prolongation of signaling (PubMed:11259588, PubMed:12913111).; [Isoform 2]: Activates angiogenesis and cell migration (PubMed:28052032). Down-regulates the expression of the endothelial adhesion molecules ICAM1 and VCAM1 (PubMed:28052032).

Subcellular Localization: Cell membrane; Single-pass type I membrane protein. Cell projection, ruffle membrane . Cell junction. Note=After T-cell stimulation, it is temporarily excluded from immunological synapses.; [Isoform 2]: Secreted, extracellular space .

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.