



Recombinant Mouse PTPRB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51113

Size: 10ug, 100ug

Protein Name: Receptor-type tyrosine-protein phosphatase beta (Protein-tyrosine phosphatase beta) (R-PTP-beta) (EC 3.1.3.48) (Vascular endothelial protein tyrosine phosphatase) (VE-PTP)

Synonym: Ptprb

UniProt ID: B2RU80

UniProt Link: www.uniprot.org/uniprotkb/B2RU80/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1998 AA

Molecular Weight: 224 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLRHGALTALWITLSVVQTGVAEQVKCNFTLLESRVSSLSASIQWRTFASPCNFSLIYSSDTS GPMW
CHPIRIDNFTYGCNPKDLQAGTVYNFRIVSLDGEESTLVLQTDPLPPARFEVNREKTASTTLQVRWTP
SSGKVSWEYEVQLFDHNNQKIQEVQVQESTTWSQYTFNLTEGNSYKVAITAVSGEKRSFPVYINGST
VPSPVKDLGISPNPNLLISWSRSGSNVEQYRLVMDKGAIVQDTNVD RRDTSYAFHELT PGHLYNL
TIVTMASGLQNSRWKLVRTAPMEVSNLKV TNDGRLTSLNVKWQKPPGDVDSYSITLSHQGTIKESKT
LAPPVTETQFKDLVPGRLYQVTISCISGELSAEKSAAGRTVPEKVRNLVSYNEIWMKSFTVNWTPPA
GDWEHYRIVLFNESLVLLNTTVGKEETHYALDGLELIPGRQYEIEVIVESGNLRNSERCQGRTVPLAV
LQLRVKHANETSLGITWRAPLGEWEKYIISLMDRELLVIHKSLSKDAKEFTFTDLMPGRNYKATVTSM
SGDLKQSSSIKGRTPAQVTDLHVNNQGMTSSLFTNWT KALGDVEFYQVLLIHENVVKNESVSSDT
SRYSFRALKPGSLYSVVVTTVSGGISSRQVVAEGRTVPSSVSGVTVNNSGRNDYLSVSWLPAPGEV
DHYVVSLSHEGKVDQFLIIAKSVSECSFSLTPGRLYNVTVTTKSGNYASHSFTEERTVPDKVQGISV
SNSARSDYLVKSVVHATGDFDHYEVTIKNRESFIQTKTIPKSENECEFIELVPGRLYSVTVSTKSGQY
EASEQGTGRTIPEPVKDLTLLNRSTEDLHVTWSRANGDVDQYEVQLLFNDMKVFPPIHLVNTATEYK
FTALT PGRHYKILVLTISGDVQQSAFIEGLTVPSTVKNIHISANGATDRLMVTWSPGGGDVDSYV VSA
FRQDEKVD SQTI PKHASEHTFHRLEAGAKYRIAIVSVSGSLRNQIDALGQTVPASVQGVVAANAYSS
NSLTVSWQKALGVAERYDILLNENGLLLSNVSE PATARQHKFEDLTPGKKYKMQILTVSGGLFSKE
SQAEGRTVPAAVTNLRITENSSRYLSFGWTASEGELSWYNIFLYNPDR TLQERAQVDPLVQSFSFQ



NLLQGRMYKMWIVTHSGELSNESFIFGRTPVPAAVNHLKGSHRNTTDSLWFSWSPASGDFDFYELILY
NPNGTKKENWKEKDVTEWRFQGLVPGRKYTLVYVTHSGDLSNKVTGEGRTAPSPPSLLSFADVAN
TSLAITWKGPPDWDYNDNFELQWFGDALTFNPYSSRKSEGRIVYGLHPGRSYQFSVKTVSGDSW
KTYSKPISGVSRTKPKDKIQLHCRPQNSTAIACSWIPPDSDFDGYSIECRKMDTQIEIEFSRKLEKEKS
LLNIMMLVPHKRYLVSIKVQSAGMTSEVVEDSTITMIDRPPQPPHIRVNEKDVLSKSSINFTVNCNW
FSDTNGAVKYFAVVVREADSMDELKPEQQHPLPSYLEYRHNASIRVYQTNFYASKCAESPDSSSSKS
FNIKLGAEMLSLGGKCDPSQQKFCDGPLKPHTAYRISIRAFQQLFDEDLKEFTKPLYSDTFFSMPITTE
SEPLFGVIEGVSAGLFLIGMLVALVAFFICRQKASHSRERPSARLSIRRRDRPLSVHLNLGQKGNRKTS
CPIKINQFEGHFMKLQADSNYLLSKEYEDLKDVGRSQSCDIALLPENRGKNRYNNILPYDASRVKLCN
VDDPCSDYINASYIPGNFRREYIATQGGLPGTKDDFWKMAWEQNVHNIVMTQCVEKGRVKCDH
YWPADQDPLYYGDLILQMVSESVLPEWTIREFKICSEEQLDAHRLIRHFHYTVWPDHGVPETTQSLIQ
FVRTVRDYINRSPGAGPTVVHCSAGVGRTGTFVALDRILQQLDSKDSVDIYGAVHDLRLHRVHVMVQT
ECQYVYLHQCVRDVLRAKKLRNEQENPLFPIYENVNPEYHRDAIYSRH

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 beta (Protein-tyrosine phosphatase beta) (R-PTP-beta) (EC 3.1.3.48) (Vascular endothelial protein tyrosine phosphatase) (VE-PTP) 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: Plays an important role in blood vessel remodeling and angiogenesis (PubMed:26773517). 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.

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.