

Recombinant Human PTPRB Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50821

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, PTPB

UniProt ID: P23467

UniProt Link: www.uniprot.org/uniprotkb/P23467/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1997 AA

Molecular Weight: 224 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLSHGAGLALWITLSLLQTGLAEPERCNFTLAESKASSHSVSIQWRILGSPCNFSLIYSSDTLGAALC
PTFRIDNTTYGCNLQDLQAGTIYNFRIISLDEERTVVLQTDPLPPARFGVSKEKTTSTSLHVWWTPSS
GKVTSYEVQLFDENNQKIQGVQIQESTSWNEYTFFNLTAGSKYNIATAVSGGKRSFSVYTNGSTVP
SPVKDIGISTKANSLISWSHGSGNVERYRLMLMDKGILVHGGVVDKHATSYAFHGLTPGYLYNLTV
MTEAAGLQNYRWKLVRTAPMEVSNLKVTDGSLTSLKVKWQRPPGNVDSYNITLSHGKTIKESRVL
APWITETHFKELVPGRLYQVTVCVSGELSAQKMAVGRTFPDKVANLEANNNGRMRSLVVSWSPP
AGDWEQYRILLFNDSVLLNITVGKEETQYVMDDTGLVPGRQYEVEVIVESGNLKNSERCQGRTPVL
AVLQLRVKHANETSLSIMWQTPVAEWEKYIISLADRDLLIHKSLSKDAKEFTFTDLVPGRKYMATVTS
ISGDLKNSSSVKGRTPAQVTDLHVANQGMTSSLFTNWTQAQGDVEFYQVLLIHENVVIKNESISSE
TSRYSFHSLKSGSLYSVVTTVSGGISSRQVVVEGRTVPSSVSGVTNNNSGRNDYLSVSWLLAPGD
VDNYEVTLSHDGKVVQSLVIAKSVRECSFSLTPGRLYTVTITRSGKYENHSFSQERTVPDKVQGV
SVSNSARSDYLRSVSWVHATGDFDHYEVTIKNNFIQTKSIPKSENECVFVQLVPGRLYSVTVTTKS
GQYEANEQGNGRTIPEPVKDLTLRNRSTEDLHVTWSGANGDVDQYEIQLLFNDMKVFPPFHLVNTA
TEYRFTSLTPGRQYKILVLTISGDVQQSAFIEGFTVPSAVKNIHISPNGATDSLTVNWTGGGDVDSY
TVSAFRHSQKVDSQTIPKHVFEHTFHRLEAGEQYQIMIASVSGSLKNQINNVGRTVPASVQGVADNA
YSSYSLIVSWQKAAGVAERYDILLTENGILLRNTSEPATTQKHKFEDLTPGKKYKIQILTSGGLFSK
EAQTEGRTVPAAVTDLRITENSTRHLSFRWTASEGELSWYNIFLYNPDGNLQERAQVDPLVQSFSF



QNLLQGRMYKMOVIVTHSGELSNESFIFGRTVPASVSHLRGSRNRTTDSLWFNWSPASGDFDFYELIL
YNPNGTKKENWKDKDLTEWRFQGLVPGRKYVLWVTHSGDLSNKVTAESRTAPSPPSLMSFADIA
NTSLAITWKGPPDWDYNDLFELQWLPRDALTVFNPNRNRKSEGRIVYGLRPGRSYQFNVKTVSGDS
WKTYSKPIFGSVRTKPKDIQNLHCRPQNSTAIACSWIPDSDFDGYSIECRKMDTQEVEFSRKLEKE
KSLNIMMLVPHKRYLVSIKVSAGMTSEVVEDSTITMIDRPPPPPPHIRVNEKDVLSKSSINFTVNCS
WFSDTNGAVKYFTVVVREADGSDELKPEQQHPLPSYLEYRHNASIRVYQTNYFASKCAENPNSNSK
SFNIKLGAEEMESLGGKCDPTQQKFCDGPLKPHAYRISIRAFQTLFDEDLKEFTKPLYSDTFFSLPITT
ESEPLFGAIEGVSAGLFLIGMLVAVVALLICRQKVSHGRERPSARLSIRDRPLSVHLNLGQKGNRKT
SCPIKINQFEGHFMKLQADSNYLLSKEYEELKDVGRNQSCDIALLPENRGKNRYNNILPYDATRVKLS
NVDDDDPCSDYINASYIPGNNFRREYIVTQGPLPGTKDDFWKMWVEQNVHNVMTQCVEKGRVKCD
HYWPADQDSLYYGDLILQMLSESVLPEWTIREFKICGEEQLDAHRLIRHFHYTVWPDHGVPETTQSLI
QFVRTVRDYINRSPGAGPTVVHCSAGVGRTGTFIALDRILQQLDSKDSVDIYGAVHDLRLHRVHMVQ
TECQYVYLHQCVRDVLARKLRSEQENPLFPIYENVNPEYHRDPVYSRH

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. 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 (By similarity).

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.