

Product datasheet for TP306377L

OriGene Technologies, Inc.

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PDGF Receptor beta (PDGFRB) (NM_002609) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human platelet-derived growth factor receptor, beta polypeptide

(PDGFRB), 1 mg

Species: Human Expression Host: HEK293T

Expression cDNA Clone >RC206377 representing NM_002609 or AA Sequence: Red=Cloning site Green=Tags(s)

MRLPGAMPALALKGELLLLSLLLLEPQISQGLVVTPPGPELVLNVSSTFVLTCSGSAPVWERMSQEPP
QEMAKAQDGTFSSVLTLTNLTGLDTGEYFCTHNDSRGLETDERKRLYIFVPDPTVGFLPNDAEELFIFLT
EITEITIPCRVTDPQLVVTLHEKKGDVALPVPYDHQRGFFGIFEDRSYICKTTIGDREVDSDAYYVYRLQ
VSSINVSVNAVQTVVRQGENITLMCIVIGNEVVNFEWTYPRKESGRLVEPVTDFLLDMPYHIRSILHIPS
AELEDSGTYTCNVTESVNDHQDEKAINITVVESGYVRLLGEVGTLQFAELHRSRTLQVVFEAYPPPTVLW
FKDNRTLGDSSAGEIALSTRNVSETRYVSELTLVRVKVAEAGHYTMRAFHEDAEVQLSFQLQINVPVRVL
ELSESHPDSGEQTVRCRGRGMPQPNIIWSACRDLKRCPRELPPTLLGNSSEEESQLETNVTYWEEEQEFE
VVSTLRLQHVDRPLSVRCTLRNAVGQDTQEVIVVPHSLPFKVVVISAILALVVLTIISLIILIMLWQKKP
RYEIRWKVIESVSSDGHEYIYVDPMQLPYDSTWELPRDQLVLGRTLGSGAFGQVVEATAHGLSHSQATMK
VAVKMLKSTARSSEKQALMSELKIMSHLGPHLNVVNLLGACTKGGPIYIITEYCRYGDLVDYLHRNKHTF
LQHHSDKRRPPSAELYSNALPVGLPLPSHVSLTGESDGGYMDMSKDESVDYVPMLDMKGDVKYADIESSN
YMAPYDNYVPSAPERTCRATLINESPVLSYMDLVGFSYQVANGMEFLASKNCVHRDLAARNVLICEGKLV
KICDFGLARDIMRDSNYISKGSTFLPLKWMAPESIFNSLYTTLSDVWSFGILLWEIFTLGGTPYPELPMN
EQFYNAIKRGYRMAQPAHASDEIYEIMQKCWEEKFEIRPPFSQLVLLLERLLGEGYKKKYQQVDEEFLRS
DHPAILRSQARLPGFHGLRSPLDTSSVLYTAVQPNEGDNDYIIPLPDPKPEVADEGPLEGSPSLASSTLN

EVNTSSTISCDSPLEPQDEPEPPQLELQVEPEPELEQLPDSGCPAPRAEAEDSFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK
Predicted MW: 123.8 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol





Bioactivity: PDGFRB activity verified in a biochemical assay: PDGFRB (platelet-derived growth factor

receptor, beta polypeptide) (TP306377) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. PDGFRB is a cell surface tyrosine kinase receptor for members of the platelet-derived growth factor family. Varying concentrations of PDGFRB were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the protein to phosphorylate the tyrosine residue in the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as "delta R" or " Δ R" and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.

Preparation: Recombinant protein was captured through anti-DDK affinity column followed by conventional

chromatography steps.

Note: For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: NP 002600

Locus ID: 5159

UniProt ID: <u>P09619</u>, <u>Q59F04</u>

RefSeq Size: 5718
Cytogenetics: 5q32
RefSeq ORF: 3318

Synonyms: CD140B; IBGC4; IMF1; JTK12; KOGS; PDGFR; PDGFR-1; PDGFR1; PENTT

Summary: The protein encoded by this gene is a cell surface tyrosine kinase receptor for members of the

platelet-derived growth factor family. These growth factors are mitogens for cells of mesenchymal origin. The identity of the growth factor bound to a receptor monomer determines whether the functional receptor is a homodimer (PDGFB or PDGFD) or a heterodimer (PDGFA and PDGFB). This gene is essential for normal development of the cardiovascular system and aids in rearrangement of the actin cytoskeleton. This gene is flanked on chromosome 5 by the genes for granulocyte-macrophage colony-stimulating factor and macrophage-colony stimulating factor receptor; all three genes may be implicated in the 5-q syndrome. A translocation between chromosomes 5 and 12, that fuses this gene to that of the ETV6 gene, results in chronic myeloproliferative disorder with eosinophilia. [provided by

RefSeq, Aug 2017]

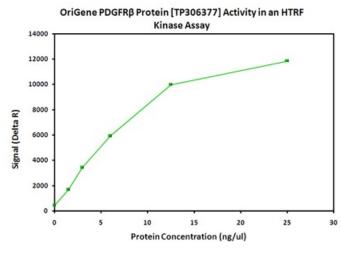
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane

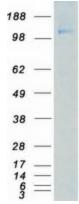


Protein Pathways:

Calcium signaling pathway, Colorectal cancer, Cytokine-cytokine receptor interaction, Focal adhesion, Gap junction, Glioma, MAPK signaling pathway, Melanoma, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton

Product images:





Coomassie blue staining of purified PDGFRB protein (Cat# [TP306377]). The protein was produced from HEK293T cells transfected with PDGFRB cDNA clone (Cat# [RC206377]) using MegaTran 2.0 (Cat# [TT210002]).