

## Product datasheet for **RC206377**

### PDGF Receptor beta (PDGFRB) (NM\_002609) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDGF Receptor beta (PDGFRB) (NM_002609) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDGF Receptor beta
Synonyms:	CD140B; IBGC4; IMF1; JTK12; KOGS; PDGFR; PDGFR-1; PDGFR1; PENTT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206377 representing NM_002609 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGGCTTCGGGTGCGATGCCAGCTCTGGCCCTCAAAGGCGAGCTGCTGTTGCTGTCTCTCTGTTAC  
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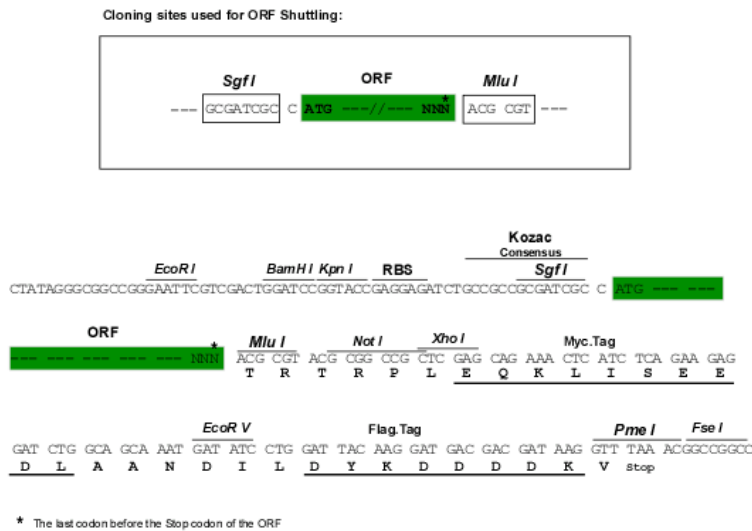
Protein Sequence:

>RC206377 representing NM\_002609  
Red=Cloning site Green=Tags(s)

MRLPGAMPALALKGELLLL SLLLLLEPQISQGLVVTTPGPELVLNVSSTFVLTCSGSAPVWERMSEPP  
QEMAKAQDGT FSSVLTNL TGLDTGEYFCTHNSRGLTDERKRLYIFVPDPTVGLPNDAAELFIFLT  
EITEITIPCRVTD PQLVVTLEHKKGDVALPVPYDHQRGFFGIFEDRSYICKTTIGDREVDSDAYVYRLQ  
VSSINVSNAVQTVVRQGENITLMCIVIGNEVNFWEYTPRKESGRLVEPVDFLLDMPYHIRSILHIPS  
AELEDSGT YTCNVTESVNDHQDEKAINITVVEGYVRLLEGEVTLQFAELHRSRTLQVVFAYPPPTVLW  
FKDNRTLGDSSAGEIALSTRNVSETRYVSELTLVRVKVAEAGHYTMRAFHEDA EVQLSFQLQINVPVRL  
ELSESHPD SGEQTVRCRGRGMPQPNIIWSACRDLKRCPRELPPTLLGNSSEEE SLETNVYWEEEQEFE  
VVSTLRLQHVD RPLSVRCTLRNAVGQDTQEIVVPHSLPFKVVVISAIALVVLTIISLIIIMLWQKPK  
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VAVKMLKSTAR SSEQALMSELKIMSHLGPHLNVVNLGACTKGGPIYIIITEYCRYGDLVDYLHRNKHTF  
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KICDFGLARDIMRDSNYISKGSTFLPLKWMAPESIFNSLYTTLSDVWSFGILLWEIFTLGGTPYPELPMN  
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DHPAILRSQARLPGFHGLRSPLDTSSVLYTAVQPNEGDN DYIIPDPKPEVADEGPLEGSPSLASSTLN  
EVNTSSTISCDSPLEPQDEPEPEPQLELQVEPEPELEQLPDSGCPAPRAEAEDSFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2657\\_d01.zip](https://cdn.origene.com/chromatograms/mg2657_d01.zip)  
 Restriction Sites: SgfI-MluI  
 Cloning Scheme:



ACCN: NM\_002609

ORF Size: 3318 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
  5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

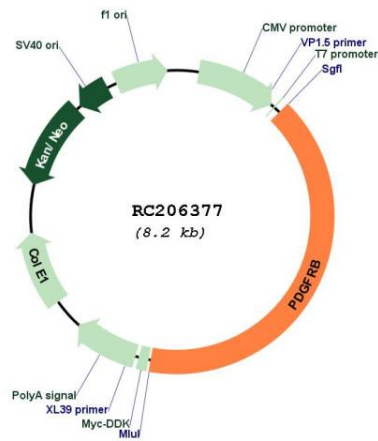
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM\\_002609.4](#)

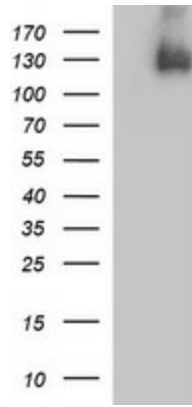
RefSeq Size: 5718 bp

RefSeq ORF:	3321 bp
Locus ID:	5159
UniProt ID:	<a href="#">P09619</a>
Cytogenetics:	5q32
Domains:	pkinase, TyrKc, S_TKc, ig, IGc2, IG
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
MW:	123.8 kDa
Gene 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]

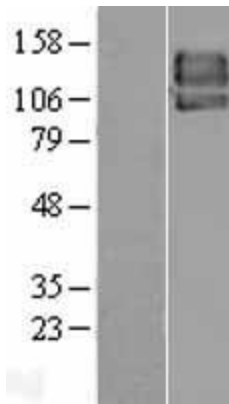
### Product images:



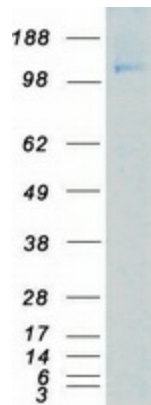
Circular map for RC206377



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDGFRB (Cat# RC206377, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDGFRB (Cat# [TA506230]). Positive lysates [LY400921] (100ug) and [LC400921] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400921]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206377 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



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]).