

Product datasheet for **RC600016**

PDGF Receptor alpha (PDGFRA) (NM_006206) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDGF Receptor alpha (PDGFRA) (NM_006206) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	PDGF Receptor alpha
Synonyms:	CD140A; PDGFR-2; PDGFR2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RC600016 representing leader sequence plus the extracellular domain region of NM_006206

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGGGGACTTCCCATCCGGCCTTCTGGTCTTAGGCTGTCTTCTCACAGGGCTGAGCCTAATCCTCTGCC
AGCTTTCATTACCTCTATCCTTCCAAATGAAAATGAAAAGTTGTGCAGCTGAATTCATCCTTTTCTCT
GAGATGCTTTGGGGAGAGTGAAGTGAAGTGGCAGTACCCCATGTCTGAAGAAGAGAGCTCCGATGTGGAA
ATCAGAAATGAAGAAAACAACAGCGGCCTTTTGTGACGGTCTTGGAAAGTGAAGTGCCTCGGCCGCC
ACACAGGGTTGTACACTTGCTATTACAACCACACTCAGACAGAAGAGAATGAGCTTGAAGGCAGGCACAT
TTACATCTATGTCCAGACCCAGATGTAGCCTTTGTACCTCTAGGAATGACGGATTATTTAGTCATCGT
GAGGATGATGATTCTGCCATTATACCTTGTGCGACAACCTGATCCCGAGACTCCTGTAACCTTACACAACA
GTGAGGGGGTGGTACCTGCCTCCTACGACAGCAGACAGGGCTTTAATGGGACCTTACTGTAGGGCCCTA
TATCTGTGAGGCCACCGTCAAAGGAAAGAAAGTTCCAGACCATCCCATTTAATGTTTATGCTTTAAAAGCA
ACATCAGAGCTGGATCTAGAAATGGAAGCTCTTAAAACCGTGTATAAGTCAGGGGAAACGATTGTGGTCA
CCTGTGCTGTTTTAACAATGAGGTGGTTGACCTTCAATGGACTTACCCTGGAGAAGTGAAGGCAAAGG
CATCACAATGCTGGAAGAAATCAAAGTCCCATCCATCAAATTGGTGTACACTTTGACGGTCCCGGAGGCC
ACGGTGAAGACAGTGGAGATTACGAATGTGCTGCCCGCCAGGCTACCAGGGAGGTCAAAGAAATGAAGA
AAGTCACTATTTCTGTCCATGAGAAAGGTTTCATTGAAATCAAACCCACCTTACGCCAGTTGGAAGCTGT
CAACCTGCATGAAGTCAAACATTTTGTGTAGAGGTGCGGGCCTACCCACCTCCAGGATATCCTGGCTG
AAAACAATCTGACTCTGATTGAAAATCTCACTGAGATCACCCTGATGTGAAAAGATTGAGAAATAA
GGTATCGAAGCAAATTAAGCTGATCCGTGCTAAGGAAGAAGACAGTGGCCATTATACTATTGTAGCTCA
AAATGAAGATGCTGTGAAGAGCTATACTTTGAACTGTTAACTCAAGTTCCTTATCCATTCTGGACTTG
GTCGATGATCACCATGGCTCAACTGGGGACAGACGGTGAAGTGCACAGCTGAAGGCACGCCGCTTCTCTG
ATATTGAGTGGATGATATGCAAAGATATTAAGAAATGTAATAATGAAACTTCTGGACTATTTGGCCAA
CAATGTCTCAAACATCATCAGGAGATCCACTCCCGAGACAGGAGTACCGTGGAGGGCCGTGTGACTTTC
GCCAAAGTGGAGGAGACCATCGCCGTGCGATGCCTGGCTAAGAATCTCCTTGGAGCTGAGAACCGAGAGC
TGAAGCTGGTGGCTCCCACCTGCGTTCTGAACCTACGGTGGCT

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

>RC600016 representing signal peptide plus the extracellular domain region of NM_006206

Red=Cloning sites Green= DDK and 6XHIS Tags

MGTSHPAFLVLGCLLTGLSLILCQLSLPILPNEKVVQLNSSFSLRCFGESEVSWQYPMSEESSDVE
IRNEENNSGLFVTVLEVSSASAAHTGLYTCYNNHTQTEENELEGRHIYIYVDPDVAFLVPLGMDYLVIV
EDDDSAIIPCRITDPETPVTLHNSGVPASYSRQGFNGFTTVPYICEATVKGKFKQIPFNVYALKA
TSELDMELKTVYKSGETIVVTCVFNNEVVDLQWYTPGEVKGKGITMLEEIKVPSIKLVYTLTVPEA
TVKDSGDYECARQATREVKEMKVTISVHEKGFIEIKPTFSQLEAVNLHEVKHFVVEVRAYPPIRISWL
KNNLTLIENLTEITTDVEKIQEIRYRSLKLRIRAKEEDSGHYTIVAQNEDAVKSYTFELLTQVPSSILD
VDDHHGSTGGQTVRCTAEGTPLPDIEWMICKDIKKCNNETSWTILANNVSNIIITEIHSRDRSTVEGRVTF
AKVEETIAVRCLAKNLLGAENRELKLVAPTLRSELTV

TRSGTRSGDYKDDDDKGSHHHHH

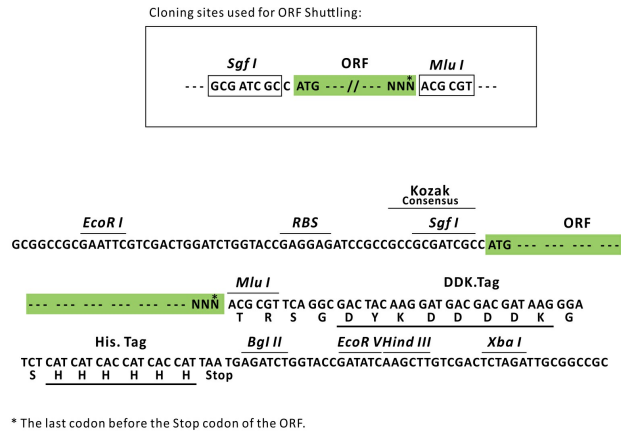
Chromatograms:

https://cdn.origene.com/chromatograms/mk8117_d09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_006206

ORF Size: 3028 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 extra cellular domain of the protein 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_006206.4](#), [NP_006197.1](#)

RefSeq Size: 6574 bp

RefSeq ORF: 3270 bp

Locus ID: 5156

UniProt ID:	P16234
Cytogenetics:	4q12
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, Endocytosis, Focal adhesion, Gap junction, Glioma, MAPK signaling pathway, Melanoma, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton
MW:	58.9 kDa
Gene Summary:	<p>This gene encodes 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 or a heterodimer, composed of both platelet-derived growth factor receptor alpha and beta polypeptides. Studies suggest that this gene plays a role in organ development, wound healing, and tumor progression. Mutations in this gene have been associated with idiopathic hypereosinophilic syndrome, somatic and familial gastrointestinal stromal tumors, and a variety of other cancers. [provided by RefSeq, Mar 2012]</p>