

## Product datasheet for **RC214164**

### PDGF AA (PDGFA) (NM\_033023) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDGF AA (PDGFA) (NM_033023) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDGF AA
Synonyms:	PDGF-A; PDGF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214164 representing NM_033023 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGACCTTGGCTTGCCTGCTCCTCGGCTGCGGATACCTCGCCCATGTTCTGGCCGAGGAAGCCG  
AGATCCCCCGGAGGTGATCGAGAGGCTGGCCCGAGTCAGATCCACAGCATCCGGGACCTCCAGCGACT  
CCTGGAGATAGACTCCGTAGGGAGTGAGGATTCTTTGGACACCAGCTGAGAGCTCACGGGGTCCATGCC  
ACTAAGCATGTGCCCGAGAAGCGGCCCTGCCATTTCGGAGGAAGAGAAGCATCGAGGAAGCTGTCCCCG  
CTGTCTGCAAGACCAGGACGGTCATTTACGAGATTCTCGGAGTCAGGTCGACCCACGTCGCCAACTT  
CCTGATCTGGCCCCGTGCGTGGAGGTGAAACGCTGCACCGGCTGCTGCAACACGAGCAGTGTCAAGTGC  
CAGCCCTCCCGCTCCACCACCGCAGCGTCAAGGTGGCCAAGGTGGAATACGTCAGGAAGAAGCCAAAAT  
TAAAAGAAGTCCAGGTGAGGTTAGAGGAGCATTGGAGTGCCTGCGCGACCACAAGCCTGAATCCGGA  
TTATCGGGAAGAGGACACGGATGTGAGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC214164 representing NM_033023 Red=Cloning site Green=Tags(s)
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MRTLACLLLLGCGYLAHVLAEEAIEPREVIERLARSQIHSIRDLQRLLEIDSVGSEDSLDTSLRAHGVHA  
TKHVPEKRPLPIRRKRSIEEAVPAVCKTRTVIYEIPRSQVDPTSANFLIWPPCVEVKRCTGCCNTSSVKC  
QPSRVHHRVSVKAVKVEYVRKKPKLKEVQVRL EEHLECACATTSLNPDYREEDTDVR

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**



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Chromatograms: [https://cdn.origene.com/chromatograms/mg3850\\_e01.zip](https://cdn.origene.com/chromatograms/mg3850_e01.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_033023

ORF Size: 588 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.

RefSeq: [NM\\_033023.4](#), [NP\\_148983.1](#)

RefSeq Size: 2749 bp

RefSeq ORF: 591 bp

Locus ID: 5154

**UniProt ID:** [P04085](#)

**Cytogenetics:** 7p22.3

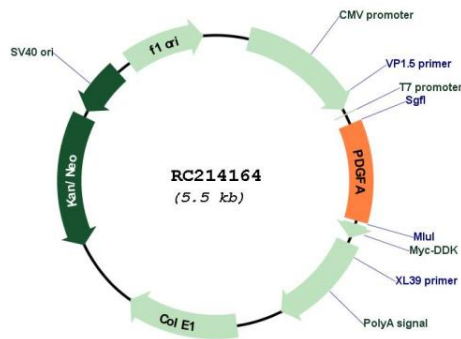
**Protein Families:** Druggable Genome

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

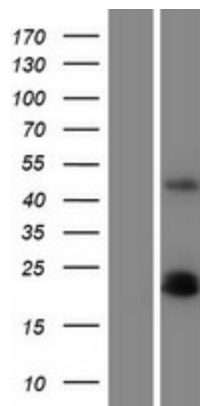
**MW:** 20.1 kDa

**Gene Summary:** This gene encodes a member of the protein family comprised of both platelet-derived growth factors (PDGF) and vascular endothelial growth factors (VEGF). The encoded preproprotein is proteolytically processed to generate platelet-derived growth factor subunit A, which can homodimerize, or alternatively, heterodimerize with the related platelet-derived growth factor subunit B. These proteins bind and activate PDGF receptor tyrosine kinases, which play a role in a wide range of developmental processes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2015]

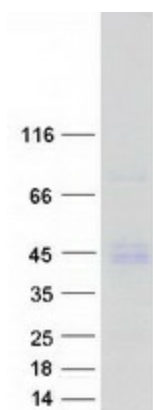
**Product images:**



Circular map for RC214164



Western blot validation of overexpression lysate (Cat# [LY409784]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214164 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDGFA protein (Cat# [TP314164]). The protein was produced from HEK293T cells transfected with PDGFA cDNA clone (Cat# RC214164) using MegaTran 2.0 (Cat# [TT210002]).