

Product datasheet for **RN216058**

Vegfa (NM_001287107) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Vegfa (NM_001287107) Rat Untagged Clone
Tag: Tag Free
Symbol: Vegfa
Synonyms: Vegf; VEGF-A; VEGF111; VEGF164; VPF
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >RN216058 representing NM_001287107
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAC**TTTCTGCTCTCTTGGGTGCACTGGACCCTGGCTTTACTGCTGTACCTCCACCATGCCAAGTGGT**
CCCAGGCTGCACCCACGACAGAAGGGGAGCAGAAAGCCCATGAAGTGGTGAAGTTCATGGACGTCTACCA
GCGCAGCTATTGCCGTC**CAATTGAGACCCTGGTGGACATCTTCCAGGAGTACCCCGATGAGATAGAGTAT**
ATCTTCAAGCCGTCCTGTGTGCCCTAATGCGGTGTGCGGGCTGCTGCAATGATGAAGCCCTGGAGTGCG
TGCCACGTCGGAGAGCAACGTCACTATGCAGATCATGCGGATCAAACCTCACCAAGCCAGCACATAGG
AGAGATGAGCTTCTGCAGCATAGCAGATGTGAATGCAGACCAAAGAAAGATAGAACAAAGCCAGAAAAA
AAATCAGTTCGAGGAAAGGGAAAGGGTCAAAAACGAAAGCGCAAGAAATCCCGGTTTAAATCCTGGAGCG
TTCAGTGTGAGCCTTGTTCAGAGCGGAGAAAGCATTGTTTGTCCAAGATCCGCAGACGTGTAATGTTC
CTGCAAAAACACAGACTCGCGTTGCAAGGCGAGGCAGCTT**GAGTTAAACGAACGTA**CTTGCAGATGTGAC
AAGCCAAGGCGG**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja3395_a02.zip
Restriction Sites: SgfI-MluI
ACCN: NM_001287107
Insert Size: 645 bp



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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

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_001287107.1](#), [NP_001274036.1](#)

RefSeq Size: 3546 bp

RefSeq ORF: 645 bp

Locus ID: 83785

UniProt ID: [P16612](#)

Cytogenetics: 9q12

Gene Summary:

This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site. [provided by RefSeq, Nov 2015]

Transcript Variant: This variant (1) represents the longest transcript. This variant can initiate translation from non-AUG (CUG) site, and also from a downstream, in-frame AUG site. The isoform (6) represented in this RefSeq is derived from the AUG start codon and it is shorter at the N-terminus, compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.