

Product datasheet for **RR215994**

Vegfa (NM_001287108) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vegfa (NM_001287108) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Vegfa
Synonyms:	Vegf; VEGF-A; VEGF111; VEGF164; VPF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RR215994 representing NM_001287108 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGAACCTTTCTGCTCTCTGGGTGCACTGGACCCTGGCTTTACTGCTGTACCTCCACCATGCCAAGTGGT
 CCCAGGCTGCACCCACGACAGAAGGGGAGCAGAAAGCCCATGAAGTGGTGAAGTTCATGGACGTCTACCA
 GCGCAGCTATTGCCGTCCAATTGAGACCCTGGTGGACATCTTCCAGGAGTACCCCGATGAGATAGAGTAT
 ATCTTCAAGCCGTCTGTGTGCCCTAATGCGGTGTGCGGGCTGCTGCAATGATGAAGCCCTGGAGTGCG
 TGCCACGTCGGAGAGCAACGTCATATGCAGATCATGCGGATCAAACCTCACAAAGCCAGCACATAGG
 AGAGATGAGCTTCTGCAGCATAGCAGATGTGAATGCAGACCAAAGAAAGATAGAACAAAGCCAGAAAAT
 CACTGTGAGCCTTGTTTCAGAGCGGAGAAAGCATTGTGTTTGTCCAAGATCCGCAGACGTGTAAATGTTCTT
 GCAAAAACACAGACTCGCGTTGCAAGGCGAGGCAGCTTGAGTTAAACGAACGTACTTGCAGATGTGACAA
 GCCAAGGCGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RR215994 representing NM_001287108 Red=Cloning site Green=Tags(s)
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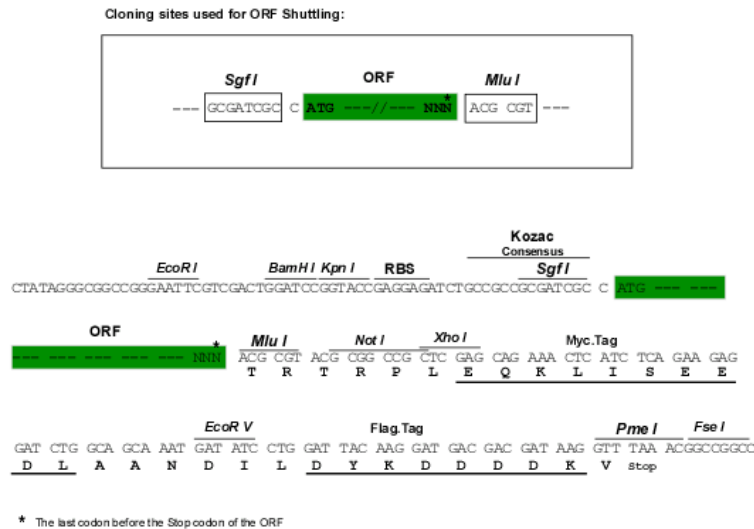
MNFLLSWVHWTLALLLYLHHAKWSQAAPTTEGEQKAHEVVKFMDVYQRSYCRPIETLVDIFQEYPDEIEY
 IFKPSCVPLMRCAGCCNDEALECVPTSESNVTMQIMRIKPHQSQHIGEMSFLQHSRCECRPKKDRTPEN
 HCEPCSERRKHLFVQDPQTKCSCKNTDSRCKARQLELNERTCRCDKPRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001287108

ORF Size: 570 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_001287108.1](#), [NP_001274037.1](#)

RefSeq Size: 3474 bp

RefSeq ORF: 573 bp

Locus ID: 83785

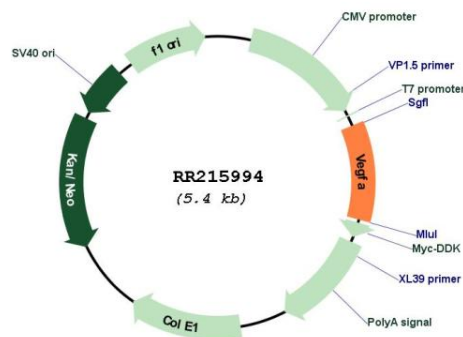
UniProt ID: [P16612](#)

Cytogenetics: 9q12

MW: 22.4 kDa

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]

Product images:



Circular map for RR215994