

Product datasheet for **RR200262**

Vegfa (NM_031836) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vegfa (NM_031836) 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:	>RR200262 representing NM_031836 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

CTGACGGACAGACAGACAGACACCGCCCCAGCCCCAGCGCCACCTCCTCGCCGGCGGGCAGCCGACGG
TGGACGCGGGCGGAGCCGCGAGCAGGAGCCGAAGCCCGCCGGAGGGGGGTGGAGGGGTGCGGGC
TCGCGGGATTGCACGGAACTTTTCGTCCAACCTCTGGGCTCTTCTCTCCGGAGTAGCCGTGGTCTGC
GCCGAGGAGCAACCGATCGGAGCTGGGAGAAGTGCTAGCTCGGGCCTGGAGAAGCCGGGGCCGAGA
AGAGAGGGGAGAAAGAGAAGGAAGAGGAGAGGGGGCCGAGTGGGCGCTCGGCTCTCGGGAGCCGGGCTC
ATGGACGGGTGAGCGGGGTGTGCGCAGACAGTGTCCAGCCGCGCGCCAGGCCCCGGCCCGG
GCCTCGGTTCCAGAAGGGAGAGGAGCCCAAGGCGCGCAAGAGAGCGGGTGCCTCGCAGTCCGAGCC
GGAGAGGGAGCGCAGCCGCGCCGGCCCGGACGGGCTCTGAAACCATGAACTTTCTGCTCTTTGGGT
GCACTGGACCCCTGGCTTTACTGTGTACCTCCACCATGCCAAGTGGTCCCAGGCTGCACCCACGACAGAA
GGGAGCAGAAAGCCATGAAGTGGTGAAGTTCATGGACGTCTACCAGCGCAGCTATTGCCGTCAAATTG
AGACCCCTGGTGGACATCTCCAGGAGTACCCGATGAGATAGAGTATATCTTCAAGCCGCTCTGTGTGCC
CCTAATGCGGTGTGCGGGCTGCTGCAATGATGAAGCCCTGGAGTGCCTGCCACGTGGAGAGCAACGTC
ACTATGCAGATCATGCGGATCAAACCTCACAAAGCCAGCACATAGGAGAGATGAGCTTCTGCAGCATA
GCAGATGTGAATGCAGACCAAAGAAAGATAGAACAAGCCAGAAAAAAATCAGTTTCGAGGAAAGGGAAA
GGGTCAAAAACGAAAGCGCAAGAAATCCCGGTTTAAATCCTGGAGCGTTCACTGTGAGCCTTGTTCAGAG
CGGAGAAAGCATTTGTTTGTCCAAGATCCGAGACGTGTAATGTTCTGCAAAAACACAGACTCGCGTT
GCAAGGCGAGGCAGCTTGAGTTAAACGAACGTACTTGAGATGTGACAAGCCAAGGCGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR200262 representing NM_031836
Red=Cloning site Green=Tags(s)

LTDRQTDTAPSPSAHLLAGGQPTVDAASREQEPKPAPGGGVEGVGARGIARKL FVQLLGSSLSGVAVVC
 AAGGKPIGAGRSASSGLEKPGPEKRGEEKEEERGPQWALGSREPGSWTGEAAVCADSAPAARAPQAPAR
 ASVPEGRGARQGAQESGLPRSPRRGSASRAGPGRASETMNLLSWVHWTLALLLYLHHAKWSQAAPTTE
 GEQKAHEVVVKFMDVYQSRPIETLVDIFQEYDPDEIEYIFKPCVPLMRCAGCCNDEALECVPTSESNV
 TMQIMRIKPHQSQHIGEMSFLLQHSRCECRPKKDRTKPEKKSVRGKGKGQKRKRKRSRFSWSVHCEPCSE
 RRKHLFVQDPQTCCKSCKNTDSRCKARQLELNERTCRCDKPRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_031836

ORF Size: 1179 bp

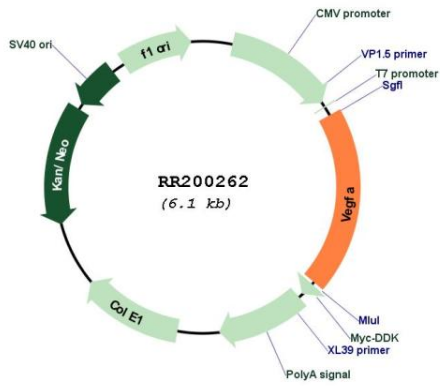
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.

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:	<ol style="list-style-type: none">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:	<u>NM_031836.3, NP_114024.2</u>
RefSeq Size:	3546 bp
RefSeq ORF:	1182 bp
Locus ID:	83785
UniProt ID:	<u>P16612</u>
Cytogenetics:	9q12
MW:	43.1 kDa
Gene Summary:	<p>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]</p>

Product images:



Circular map for RR200262