

## **Product datasheet for SC217121**

## VEGFA (NM\_001025370) Human 3' UTR Clone

## **Product data:**

**Product Type:** 3' UTR Clones

**Product Name:** VEGFA (NM\_001025370) Human 3' UTR Clone

Symbol: VEGFA

Synonyms: MVCD1; VEGF; VPF

Mammalian Cell Neomycin

Selection:

**Vector:** pMirTarget (PS100062)

**ACCN:** NM\_001025370

**Insert Size:** 1955 bp

## OriGene Technologies, Inc.

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**Insert Sequence:** 

>SC217121 3'UTR clone of NM\_001025370

The sequence shown below is from the reference sequence of NM\_001025370. The complete sequence of this clone may contain minor differences, such as SNPs. Blue=Stop Codon Red=Cloning site

GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC

TGGAATTGGATTCGCCATTTTATTTTTCTTGCTGCTAAATCACCGAGCCCGGAAGATTAGAGAGTTTTA TTATTGGTGTCTTCACTGGATGTATTTGACTGCTGTGGACTTGAGTTGGGAGGGGAATGTTCCCACTCA CCAGGGTCCTCCCCTGCCCAGGAATGTGCAAGGCCAGGGCATGGGGGCAAATATGACCCAGTTTTGG GAACACCGACAAACCCAGCCCTGGCGCTGAGCCTCTCTACCCCAGGTCAGACGGACAGAAAGACAGATC ACAGGTACAGGGATGAGGACACCGGCTCTGACCAGGAGTTTGGGGAGCTTCAGGACATTGCTGTGCTTT GGGGATTCCCTCCACATGCTGCACGCGCATCTCGCCCCCAGGGGCACTGCCTGGAAGATTCAGGAGCCT GGGCGGCCTTCGCTTACTCTCACCTGCTTCTGAGTTGCCCAGGAGACCACTGGCAGATGTCCCGGCGAA GAGAAGAGACACATTGTTGGAAGAAGCAGCCCATGACAGCTCCCCTTCCTGGGACTCGCCCTCATCCTC TTCCTGCTCCCCTTCCTGGGGTGCAGCCTAAAAGGACCTATGTCCTCACACCATTGAAACCACTAGTTC TGTCCCCCCAGGAGACCTGGTTGTGTGTGTGTGAGTGGTTGACCTTCCTCCATCCCTTGGTCCTTCCCT TCCCTTCCCGAGGCACAGAGAGACAGGGCAGGATCCACGTGCCCATTGTGGAGGCAGAGAAAAGAGAAA GAGTAGGGTTTTTTTCAGTATTCTTGGTTAATATTTAATTTCAACTATTTATGAGATGTATCTTTTGC ATCGGTGACAGTCACTAGCTTATCTTGAACAGATATTTAATTTTGCTAACACTCAGCTCTGCCCTCCCC ATAGACATTGCTATTCTGTTTTTTATATGTAAAAACAAAACAAGAAAAAATAGAGAATTCTACATACTA AATTGTGGGGAAAAGATATTAACATCACGTCTTTGTCTCTAGTGCAGTTTTTTCGAGATATTCCGTAGTA AAGAATTTAATTCTGATCTCAAA

**Restriction Sites:** Sgfl-Mlul

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the sequence identifier above as a

point of reference. Note that the complete sequence of this clone is largely the same as the

reference sequence but may contain minor differences, e.g., single nucleotide

polymorphisms (SNPs).

**Components:** The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The

package also includes 100 pmols of both the corresponding 5' and 3' vector primers in

separate vials.

**RefSeg:** NM 001025370.3



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. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. 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 inframe 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. The levels of VEGF are increased during infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), thus promoting inflammation by facilitating recruitment of inflammatory cells, and by increasing the level of angiopoietin II (Ang II), one of two products of the SARS-CoV-2 binding target, angiotensin-converting enzyme 2 (ACE2). In turn, Ang II facilitates the elevation of VEGF, thus forming a vicious cycle in the release of inflammatory cytokines. [provided by RefSeq, Jun 2020]

**Locus ID:** 7422

MW: 75.4