

## Product datasheet for **TP723470**

### Vegfa (NM\_001110336) Rat Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Rat vascular endothelial growth factor A (Vegfa), transcript variant 5.
Species:	Rat
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCCK NTDSRCKARQ LELNERTCRC DKPRR
Tag:	Tag Free
Predicted MW:	38.5 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Lyophilized from a 0.2 μM filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bioactivity:	Determined by the dose-dependent stimulation of the proliferation of Human umbilical vein endothelial cells (HUVEC). The expected ED50 is 4.0-8.0 ng/ml.
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="#">NP_001103806</a>
Locus ID:	83785
UniProt ID:	<a href="#">P16612</a>
RefSeq Size:	2544
Cytogenetics:	9q12
RefSeq ORF:	255
Synonyms:	Vegf; VEGF-A; VEGF111; VEGF164; VPF



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**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]