

Product datasheet

VEGFA peptide **ab46160**

[3 References](#) [1 Image](#)

Description

Product name	VEGFA peptide
Purity	> 90 % HPLC.
Accession	<u>P15692</u>
Animal free	No
Nature	Synthetic
Species	Human
Description	Human VEGFA peptide

Specifications

Our **Abpromise guarantee** covers the use of **ab46160** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Blocking - Blocking peptide for Anti-VEGFA antibody (<u>ab46154</u>)
Form	Liquid
Additional notes	<ul style="list-style-type: none">- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.
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General Info

Function

Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.

Tissue specificity

Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.

Involvement in disease

Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.

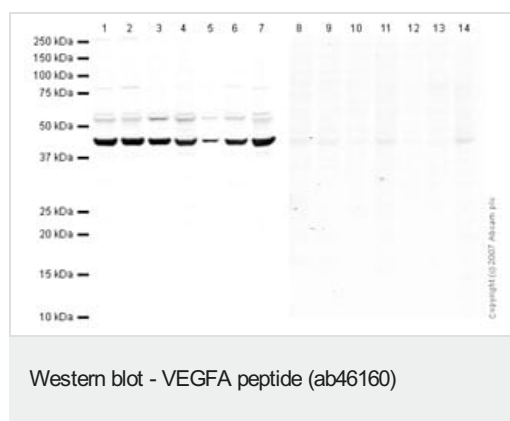
Sequence similarities

Belongs to the PDGF/VEGF growth factor family.

Cellular localization

Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

Images



All lanes : Anti-VEGFA antibody ([ab46154](#)) at 0.5 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 2 : Jurkat whole cell lysate ([ab7899](#))

Lane 3 : A-431 whole cell lysate ([ab7909](#))

Lane 4 : HEK-293 whole cell lysate ([ab7902](#))

Lane 5 : Hep G2 whole cell lysate ([ab7900](#))

Lane 6 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lane 7 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate

Lane 8 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate with VEGFA peptide (ab46160) at 1 µg/ml

Lane 9 : Jurkat whole cell lysate ([ab7899](#)) with VEGFA peptide (ab46160) at 1 µg/ml

Lane 10 : A-431 whole cell lysate ([ab7909](#)) with VEGFA peptide (ab46160) at 1 µg/ml

Lane 11 : HEK-293 whole cell lysate ([ab7902](#)) with VEGFA

peptide (ab46160) at 1 µg/ml

Lane 12 : Hep G2 whole cell lysate (**ab7900**) with VEGFA peptide (ab46160) at 1 µg/ml

Lane 13 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate with VEGFA peptide (ab46160) at 1 µg/ml

Lane 14 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate with VEGFA peptide (ab46160) at 1 µg/ml

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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