

VEGFR3 Antibody Blocking Peptide
Synthetic peptide
Catalog # BP7645d**Specification**

VEGFR3 Antibody Blocking Peptide - Product InformationPrimary Accession [P35916](#)**VEGFR3 Antibody Blocking Peptide - Additional Information****Gene ID** 2324**Other Names**

Vascular endothelial growth factor receptor 3, VEGFR-3, Fms-like tyrosine kinase 4, FLT-4, Tyrosine-protein kinase receptor FLT4, FLT4, VEGFR3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7645d](/products/AP7645d) was selected from the region of human VEGFR3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

VEGFR3 Antibody Blocking Peptide - Protein Information**Name** FLT4**Synonyms** VEGFR3**Function**

Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFC and VEGFD, and plays an essential role in adult lymphangiogenesis and in the development of the vascular network and the cardiovascular system during embryonic development. Promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated FLT4 leads to enhanced production of VEGFC, and to a lesser degree VEGFA, thereby creating a positive feedback loop that enhances FLT4 signaling. Modulates KDR signaling by forming heterodimers. The secreted isoform 3 may function as a decoy receptor for VEGFC and/or VEGFD and play an important role as a negative regulator of VEGFC-mediated lymphangiogenesis and angiogenesis. Binding of vascular growth factors to isoform 1 or isoform 2 leads to the activation of several

signaling cascades; isoform 2 seems to be less efficient in signal transduction, because it has a truncated C-terminus and therefore lacks several phosphorylation sites. Mediates activation of the MAPK1/ERK2, MAPK3/ERK1 signaling pathway, of MAPK8 and the JUN signaling pathway, and of the AKT1 signaling pathway. Phosphorylates SHC1. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Promotes phosphorylation of MAPK8 at 'Thr-183' and 'Tyr-185', and of AKT1 at 'Ser-473'.

Cellular Location

Cell membrane; Single-pass type I membrane protein Cytoplasm Nucleus. Note=Ligand-mediated autophosphorylation leads to rapid internalization [Isoform 2]: Cell membrane; Single-pass type I membrane protein

Tissue Location

Detected in endothelial cells (at protein level). Widely expressed. Detected in fetal spleen, lung and brain. Detected in adult liver, muscle, thymus, placenta, lung, testis, ovary, prostate, heart, and kidney.

VGFR3 Antibody Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

VGFR3 Antibody Blocking Peptide - Images**VGFR3 Antibody Blocking Peptide - Background**

VGFR3 is a tyrosine kinase receptor for vascular endothelial growth factors C and D. This protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. Mutations in the gene encoding this protein cause hereditary lymphedema type IA.

VGFR3 Antibody Blocking Peptide - References

Walter, J.W., et al., Genes Chromosomes Cancer 33(3):295-303 (2002).Karkkainen, M.J., et al., Nat. Genet. 25(2):153-159 (2000).Irrthum, A., et al., Am. J. Hum. Genet. 67(2):295-301 (2000).Ferrell, R.E., et al., Hum. Mol. Genet. 7(13):2073-2078 (1998).Galland, F., et al., Oncogene 8(5):1233-1240 (1993).