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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

VEGFR3 Extracellular Domain (human, recombinant)

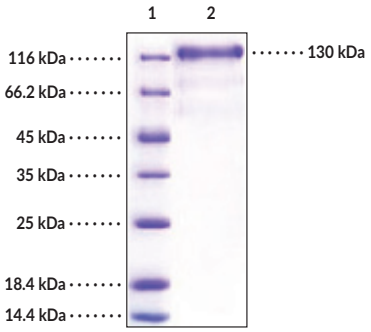
Item No. 33746

Overview and Properties

Synonyms:	FLT4, Fms-like Tyrosine Kinase 4, Tyrosine-protein Kinase Receptor FLT4, Vascular Endothelial Growth Factor Receptor 3
Source:	Active recombinant human C-terminal His-tagged VEGFR3 expressed in HEK293 Cells
Amino Acids:	25-776
Uniprot No.:	P35916
Molecular Weight:	86 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥97% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing:	<1.0 EU/µg, determined by the LAL endotoxin assay
Protein Concentration:	***batch specific*** mg/ml
Bioctivity:	See figures for details

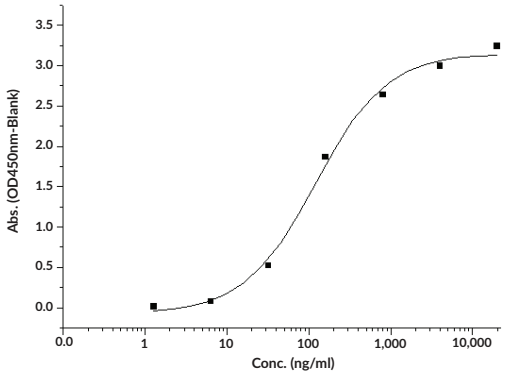
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: VEGFR3 Extracellular Domain

SDS-PAGE Analysis of VEGFR3 Extracellular Domain. This protein has a calculated molecular weight of 86 kDa. It has an apparent molecular weight of approximately 130 kDa by SDS-PAGE under reducing conditions due to glycosylation.



VEGFR3 Extracellular Domain binding in a binding assay. Immobilized human VEGF-C at 10 µg/ml (100 µl/well) can bind human VEGFR3-His. The EC_{50} value of human VEGFR3-His is 0.011 µg/ml.

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PRODUCT INFORMATION

Description

VEGFR3 is a receptor tyrosine kinase that is composed of an N-terminal extracellular ligand-binding domain, which contains seven immunoglobulin-like (Ig-like) domains, a transmembrane domain, and an intracellular tyrosine kinase domain, which is subject to phosphorylation and contains a kinase insert domain and the C-terminal domain.[1,2] It contains an N-terminal signal peptide cleavage site at Tyr^{25} and can also be cleaved between Arg^{472} and Ser^{473} creating an alternate N-terminus.[3,4] VEGFR3 forms homodimers or heterodimers with VEGFR2, with heterodimerization inducing changes in VEGFR3 autophosphorylation patterns.[2] It is expressed in lymphatic endothelial cells, where it is bound by the growth factors VEGF-C or VEGF-D and involved in cell proliferation, migration, and survival, as well as in cells undergoing angiogenesis or lymphangiogenesis, and in osteoblasts, neuronal progenitor cells, and macrophages.[1,2] Inactivating mutations in *VEGFR3* have been found in patients with hereditary lymphedema.[5,6] Activation of VEGFR3 signaling increases tumor growth in a mouse orthotopic model of colorectal cancer, and VEGFR3 protein levels are increased in tumor tissue and tumor-associated macrophages isolated from patients with non-metastatic colorectal cancer.[7] Cayman's VEGFR3 Extracellular Domain (human, recombinant) protein can be used for enzyme activity assays. This protein consists of 763 amino acids, has a calculated molecular weight of 86 kDa, and a predicted N-terminus of Tyr^{25} after signal peptide cleavage. By SDS-PAGE, under non-reducing conditions, the apparent molecular mass of the protein is approximately 130 kDa due to glycosylation.

References

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