

Product datasheet

Recombinant human VEGF Receptor 2 protein (Active) ab106310

[3 Images](#)

Description

Product name	Recombinant human VEGF Receptor 2 protein (Active)
Biological activity	Measured by its ability to inhibit the VEGF165-induced proliferation in human umbilical vein endothelial (HUVE) cells.
Purity	> 95 % SDS-PAGE. Affinity purified.
Expression system	Insect cells
Accession	<u>P35968</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	The soluble receptor protein consists of the first 6 extracellular domains and contains the unique C-terminal end of native Human soluble VEGF Receptor 2 (CGRETILDHSAEAVGMP) [Albuquerque et al.,Nature Medicine,2009] generated by alternative splicing.
Predicted molecular weight	105 kDa

Specifications

Our **Abpromise guarantee** covers the use of **ab106310** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Lyophilized
Additional notes	Endotoxin level: < 0.1 ng per ug. Measured by its ability to bind to immobilized recombinant Human VEGF165 in a functional ELISA.

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.

Constituents: 0.4875% MES, 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

The lyophilized powder should be reconstituted in water or PBS to a concentration not lower than 100 µg/ml.

General Info

Function

Receptor for VEGF or VEGFC. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Involvement in disease

Defects in KDR are associated with susceptibility to hemangioma capillary infantile (HCI) [MIM:602089]. HCI are benign, highly proliferative lesions involving aberrant localized growth of capillary endothelium. They are the most common tumor of infancy, occurring in up to 10% of all births. Hemangiomas tend to appear shortly after birth and show rapid neonatal growth for up to 12 months characterized by endothelial hypercellularity and increased numbers of mast cells. This phase is followed by slow involution at a rate of about 10% per year and replacement by fibrofatty stroma.

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

Contains 7 Ig-like C2-type (immunoglobulin-like) domains.

Contains 1 protein kinase domain.

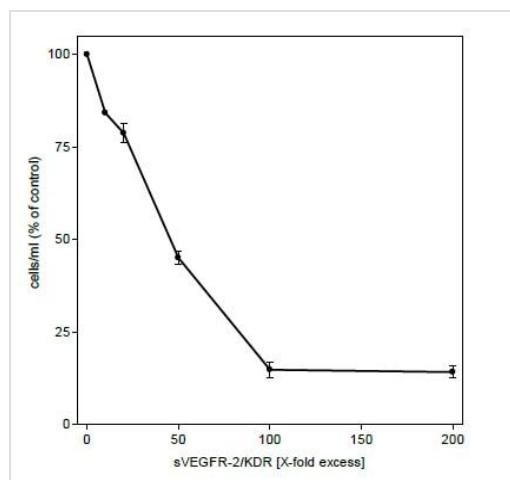
Post-translational modifications

Phosphorylated. Dephosphorylated by PTPRB. Dephosphorylated by PTPRJ at Tyr-951, Tyr-996, Tyr-1054, Tyr-1059, Tyr-1175 and Tyr-1214.

Cellular localization

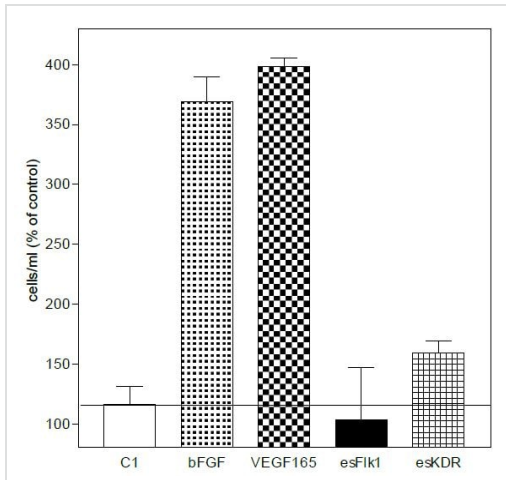
Membrane.

Images



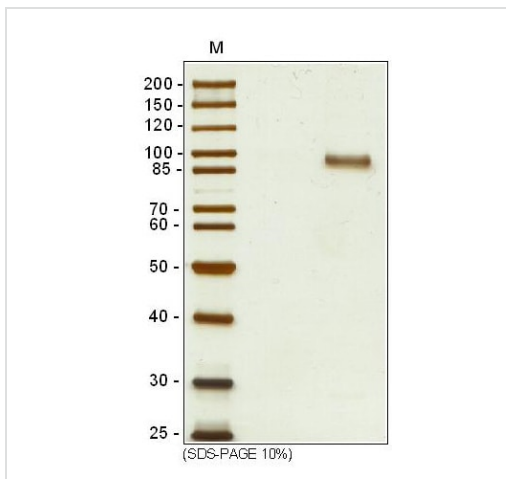
Inhibition of the VEGF165-induced proliferation in HUVECs by soluble VEGFR-2/KDR. VEGF165 (10ng/ml) was preincubated with increasing amounts of sVEGFR-2/KDR for 1h and then added to the cells.

Functional Studies - Recombinant Human VEGF Receptor 2 protein (ab106310)



Inhibition of the VEGF165-induced proliferation of HUVE cells by recombinant human and mouse endogenous sKDR and sFlk-1 HUVECs were stimulated with 10 ng/ml VEGF165, both soluble receptors were added with a 100X excess.

Functional Studies - Recombinant Human VEGF Receptor 2 protein (ab106310)



SDS-PAGE showing ab106310

SDS-PAGE - Recombinant Human VEGF Receptor 2 protein (ab106310)

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

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