Datasheet for ABIN2181905

VEGF Protein (AA 27-191) (His tag)

2 Images | 1 Publication

Go to Product page

Overview

Quantity:	50 µg
Target:	VEGF
Protein Characteristics:	AA 27-191
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This VEGF protein is labelled with His tag.

Product Details

Sequence:	AA 27-191
Characteristics:	This protein carries a polyhistidine tag at the N-terminus. The protein has a calculated MW of 20 kDa (monomer). As a result of glycosylation, the protein migrates as 25 kDa (monomer) under reducing (R) condition, and 43-50 kDa (homodimer) under non-reducing (NR) condition (SDS-PAGE).
Purity:	>90 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	VEGF

Target Details

Alternative Name:	VEGF (VEGF Products)
Background:	VEGF165 is the most abundant splice variant of VEGF-A. VEGF165 is produced by a number of cells including endothelial cells, macrophages and T cells. VEGF165 is involved in angiogenesis, vascular endothelial cell survival, growth, migration and vascular permeability. VEGF gene expression is induced by hypoxia, inflammatory cytokines and oncogenes. VEGF165 binds to heparan sulfate and is retained on the cell surface and in the extracellular matrix. VEGF165 binds to the receptor tyrosine kinases, VEGFR1 and VEGFR2. VEGF165 is the only splice variant that binds to co-receptors NRP-1 and NRP-2 that function to enhance VEGFR2 signaling. Binding of VEGF165 to VEGFR1 and VEGFR2 leads to activation of the PI3K/AKT, p38 MAPK, FAK and paxillin. VEGF plays a key role in tumor angiogenesis in many cancers.
Molecular Weight:	21.1 kDa
NCBI Accession:	NP_001165097

Application Details

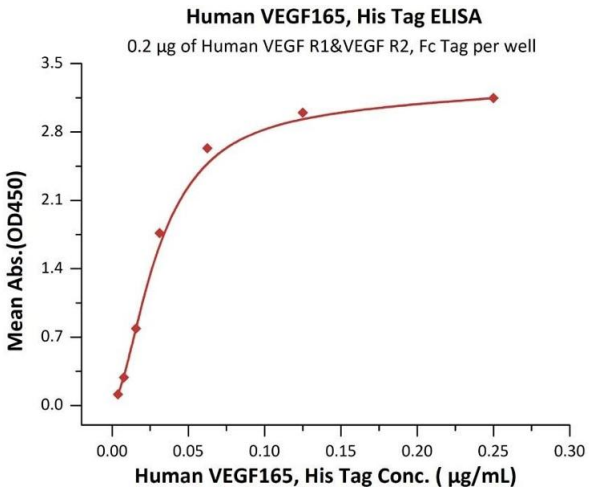
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C), After reconstitution under sterile conditions for 3 months (-70 °C).

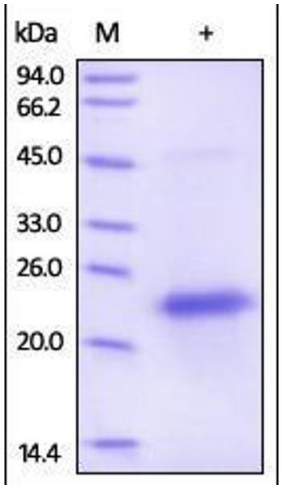
Publications

Product cited in:	Kerros, Tripathi, Zha, Mehrens, Sergeeva, Philips, Qiao, Peters, Katayama, Sukhumalchandra, Ruisaard, Perakis, St John, Lu, Mittendorf, Clise-Dwyer, Herrmann, Alatrash, Toniatti, Hanash, Ma, Molldrem: "Neuropilin-1 mediates neutrophil elastase uptake and cross-presentation in breast cancer cells." in: **The Journal of biological chemistry**, Vol. 292, Issue 24, pp. 10295-10305, (2017) (PubMed).



ELISA

Image 1. Immobilized Human VEGF R1&VEGF R2, Fc Tag at 2 μg/mL (100 μL/well) can bind Human VEGF165, His Tag (ABIN2181905,ABIN2181904) with a linear range of 0.004-0.063 μg/mL (QC tested).



SDS-PAGE

Image 2. Human VEGF165 Protein, His Tag on SDS-PAGE under reducing (R) and no-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.