

Datasheet for ABIN2181906

VEGF Protein (AA 27-191) (Biotin)**3** Images**1** Publication[Go to Product page](#)

Overview

Quantity:	200 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 Biotin.

Product Details

Brand:	MABSol@UltraLys
Sequence:	AA 27-191
Specificity:	The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.
Characteristics:	The product does NOT contain any epitope tags. The protein has a calculated MW of 19 kDa (monomer). The protein migrates as 24 kDa (monomer) on a SDS-PAGE gel under reducing (R) condition due to glycosylation and 43-50 kDa under non-reducing (NR) condition.
Purity:	>95 % as determined by reduced SDS-PAGE.
Sterility:	0.22 µm filtered

Product Details

Endotoxin Level: Less than 1.0 EU per µg by the LAL method.

Target Details

Target: VEGF

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: 19.2 kDa

NCBI Accession: [NP_001165097](#)

Application Details

Comment: A chemically labeled biotinylated protein with ultra sensitivity.

The product is produced using a chemical labeling approach. The primary amines in the side chains of lysine residues and the N-terminus of protein are conjugated with biotins.

Chemical labeling usually results in multiple biotin attachment on a single protein molecule, which could potentially lead to higher detection sensitivity.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: PBS, pH 7.4

Handling Advice: Please avoid repeated freeze-thaw cycles.

Storage: -20 °C

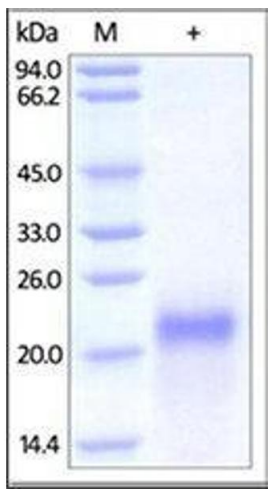
Storage Comment: No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C), After

reconstitution under sterile conditions for 3 months (-70 °C).

Publications

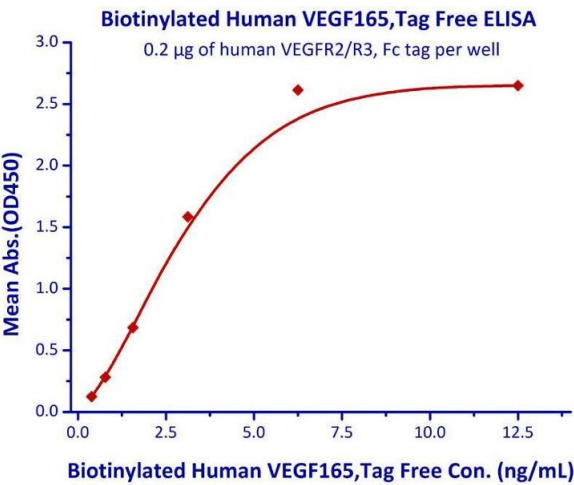
Product cited in: McGonigle, Majumder, Kolber-Simonds, Wu, Hart, Noland, TenDyke, Custar, Li, Du, Postema, Lai, Twine, Woodall-Jappe, Nomoto: "Neuropilin-1 drives tumor-specific uptake of chlorotoxin." in: **Cell communication and signaling : CCS**, Vol. 17, Issue 1, pp. 67, (2019) ([PubMed](#)).

Images



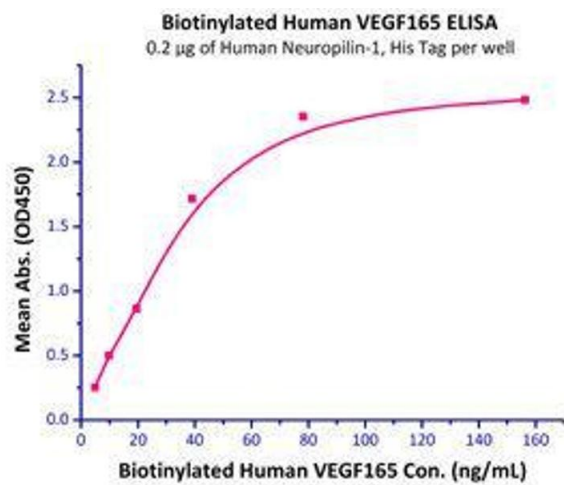
SDS-PAGE

Image 1. Biotinylated Human VEGF165 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%.



Binding Studies

Image 2. Immobilized human VEGFR2/R3, Fc tag at 2µg/mL (100 µL/well) can bind Biotinylated Human VEGF with a linear range of 0.39-3.1 ng/mL.



Binding Studies

Image 3. Immobilized Human Neuropilin-1, His Tag (Cat # NR1-H5228) at 2 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165 (Cat # VE5-H8210) with a linear range of 5-40 ng/mL.