Datasheet for ABIN3137661

VEGFR2/CD309 Protein (AA 20-764) (His tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	VEGFR2/CD309 (VEGFR2)
Protein Characteristics:	AA 20-764
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This VEGFR2/CD309 protein is labelled with His tag,AVI tag,Biotin.

Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 20-764
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. The protein has a calculated MW of 86 kDa. The protein migrates as 120-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	VEGFR2/CD309 (VEGFR2)
Alternative Name:	VEGFR2 (VEGFR2 Products)
Background:	Kinase insert domain receptor (KDR) is also known as CD309, FLK1, VEGFR, VEGFR2, and is one of the subtypes of VEGFR. VEGF receptors are receptors for vascular endothelial growth factor (VEGF). There are three main subtypes of VEGFR, numbered 1, 2 and 3. The VEGF receptors have an extracellular portion consisting of 7 immunoglobulin-like domains, a single transmembrane spanning region and an intracellular portion containing a split tyrosine-kinase domain. VEGF-A binds to VEGFR-1 (Flt-1) and VEGFR-2 (KDR/Flk-1). VEGFR-2 appears to mediate almost all of the known cellular responses to VEGF.The function of VEGFR-1 is less well defined, although it is thought to modulate VEGFR-2 signaling. Another function of VEGFR-1 may be to act as a dummy/decoy receptor, sequestering VEGF from VEGFR-2 binding (this appears to be particularly important during vasculogenesis in the embryo). In addition, VEGFR2 is able to interact with HIV-1 extracellular Tat protein upon VEGF activation, and seems to enhance angiogenesis in Kaposi's sarcoma lesions.
Molecular Weight:	85.9 kDa
Pathways:	RTK Signaling, Glycosaminoglycan Metabolic Process, Signaling Events mediated by VEGFR1 and VEGFR2, Growth Factor Binding, Regulation of long-term Neuronal Synaptic Plasticity, VEGF Signaling

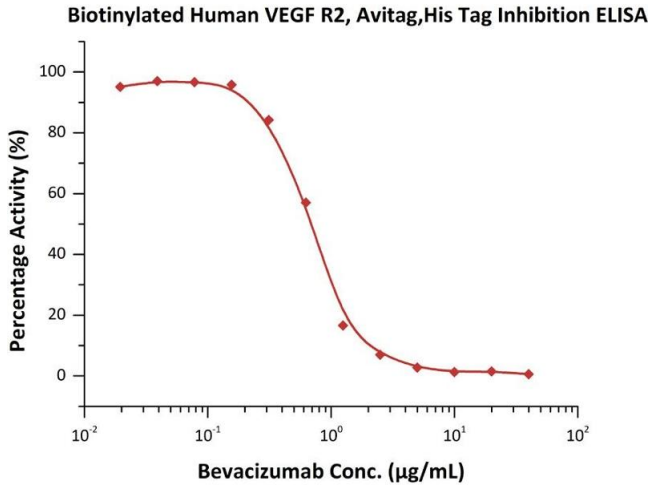
Application Details

Comment:	Ready-to-use AvitagTM biotinylated protein: The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA. This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.
Restrictions:	For Research Use only

Handling

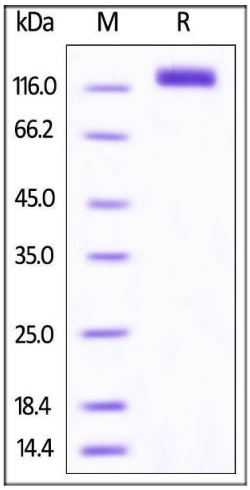
Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Images



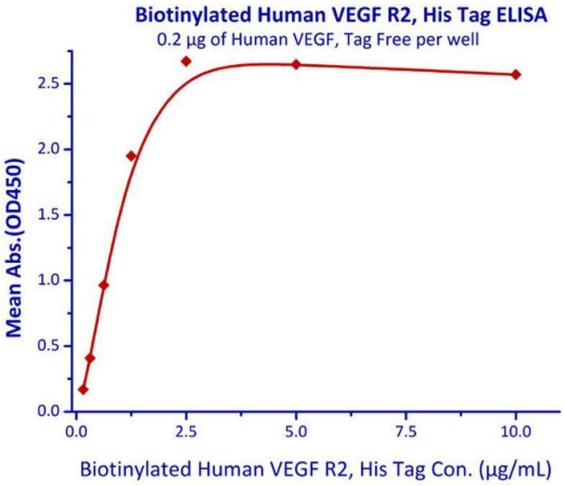
ELISA

Image 1. Immobilized Human VEGF165, Tag Free (Hied) (ABIN2181903,ABIN2693608,ABIN3071747) at 2 µg/mL (100 µL/well) can bind increasing concentrations of Bevacizumab and 0.5 µg/mL (100 µL/well) Biotinylated Human VEGF R2, Avitag,His Tag (ABIN3137661,ABIN4369367) with a half maximal inhibitory concentration (IC50) of 0.70 µg/mL (Routinely tested).



SDS-PAGE

Image 2. Biotinylated Human VEGF R2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 3. Immobilized Human VEGF, Tag Free with a linear range of 0.15-2.5 µg/mL.

