Datasheet for ABIN4949052

VEGFA Protein (AA 27-190) (His tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	VEGFA
Protein Characteristics:	AA 27-190
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This VEGFA protein is labelled with His tag,AVI tag,Biotin.
Application:	Functional Studies (Func)

Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 27-190
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 a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 22.5 kDa. As a result of different glycosylation, the protein migrates as 28-33 kDa under reducing (R) condition, and 46-60 kDa under non-reducing (NR) condition (SDS-PAGE).
Purity:	>95 % as determined by SDS-PAGE.

Product Details

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

Target Details

Target:	VEGFA
Alternative Name:	VEGF164 (VEGFA Products)
Background:	Vascular endothelial growth factor A (VEGFA) is also known as Vascular permeability factor (VPF). VEGFA belongs to the PDGF/VEGF growth factor family. VEGFA is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized. VEGFA is produced by a group of three major isoforms as a result of alternative splicing and if any three isoforms are produced (VEGFA120, VEGFA164, and VEGFA188) then this will not result in vessel defects and death of the full VEGFA knockout in mice.
Molecular Weight:	22.5 kDa
Pathways:	RTK Signaling, Glycosaminoglycan Metabolic Process, Regulation of Cell Size, Tube Formation, Signaling Events mediated by VEGFR1 and VEGFR2, Platelet-derived growth Factor Receptor Signaling, VEGFR1 Specific Signals, VEGF Signaling

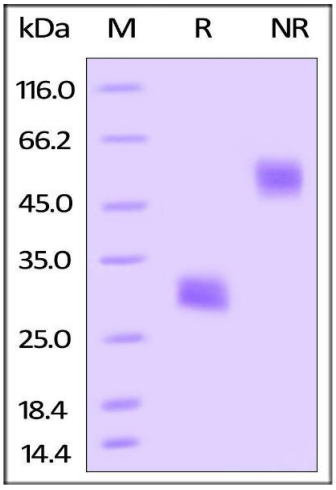
Application Details

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



SDS-PAGE

Image 1. Biotinylated Mouse VEGF164, 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%.

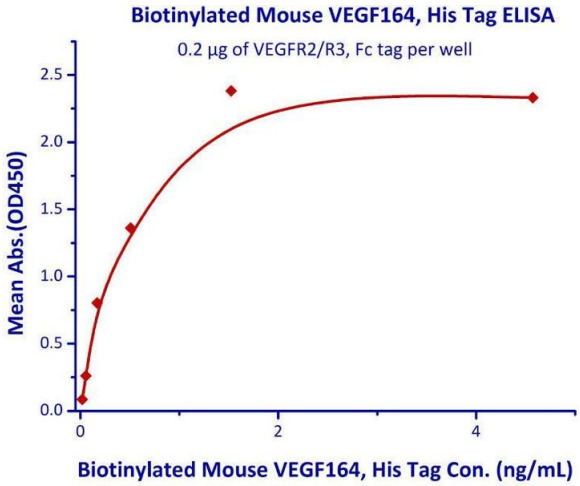


Image 2. Measured by its binding ability in a functional ELISA. Immobilized VEGFR2/R3, Fc tag at 2µg/mL (100 µ L/well) can bind Biotinylated Mouse VEGF164, His Tag with a linear range of 0.019-0.51 ng/mL.

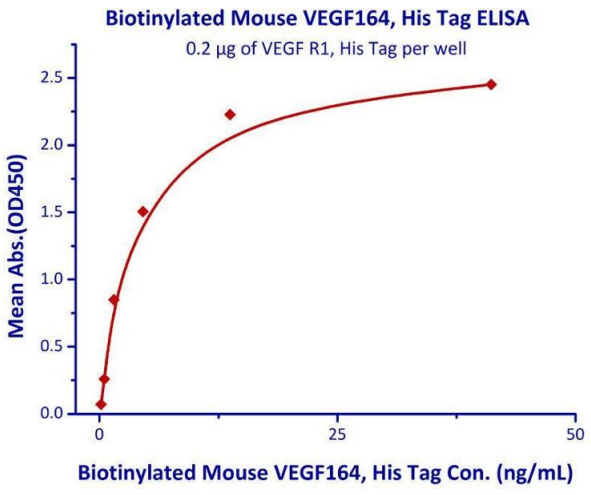


Image 3. Measured by its binding ability in a functional ELISA. Immobilized Human VEGF R1, His Tag with a linear range of 0.17-1.52 ng/mL.

