Datasheet for ABIN5674605

Neuropilin 1 Protein (NRP1) (AA 22-644) (His tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	Neuropilin 1 (NRP1)
Protein Characteristics:	AA 22-644
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Neuropilin 1 protein is labelled with His tag,AVI tag,Biotin.

Product Details

Brand:	PrecisionAvi
Sequence:	AA 22-644
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 C-terminus, followed by an Avi tag. The protein has a calculated MW of 73.5 kDa. The protein migrates as 90-100 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:	Neuropilin 1 (NRP1)
Alternative Name:	Neuropilin-1 (NRP1 Products)
Background:	Neuropilin-1 (NRP1) is also known as Vascular endothelial cell growth factor 165 receptor (VEGF165R), CD antigen CD304, which belongs to the neuropilin family. The membrane-bound isoform 1 is a receptor involved in the development of the cardiovascular system, in angiogenesis, in the formation of certain neuronal circuits and in organogenesis outside the nervous system. It mediates the chemorepulsant activity of semaphorins. It binds to semaphorin 3A, The PLGF-2 isoform of PGF, The VEGF-165 isoform of VEGF and VEGF-B. Coexpression with KDR results in increased VEGF-165 binding to KDR as well as increased chemotaxis. It may regulate VEGF-induced angiogenesis. The soluble isoform 2 binds VEGF-165 and appears to inhibit its binding to cells.
Molecular Weight:	73.5 kDa
NCBI Accession:	NP_001019799
Pathways:	Regulation of Cell Size, Signaling Events mediated by VEGFR1 and VEGFR2, Smooth Muscle Cell Migration, Platelet-derived growth Factor Receptor Signaling, VEGFR1 Specific Signals

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

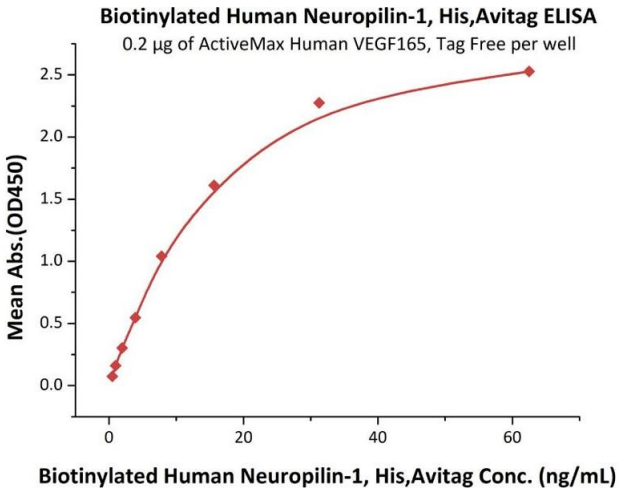
Handling

Format:	Lyophilized

Handling

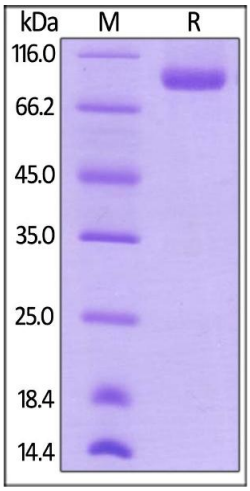
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Images



ELISA

Image 1. Immobilized Human VEGF165, Tag Free (Hied) (ABIN2181903,ABIN2693608,ABIN3071747) at 2 µg/mL (100 µL/well) can bind Biotinylated Human Neuropilin-1, His,Avitag (ABIN5674605,ABIN6253660) with a linear range of 0.5-16 ng/mL (QC tested).



SDS-PAGE

Image 2. Biotinylated Human Neuropilin-1, His,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95 % .