

Product datasheet

Recombinant human Neuropilin 1 protein (Fc Chimera Active) ab221023

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Description

Product name	Recombinant human Neuropilin 1 protein (Fc Chimera Active)	
Biological activity	Measured by its binding ability in a functional ELISA. Immobilized ab221023 at 2 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165 with a linear range of 5-40 ng/mL.	
Purity	> 95 % SDS-PAGE.	
Endotoxin level	< 1.000 Eu/µg	
Expression system	HEK 293 cells	
Accession	<u>O14786-2</u>	
Protein length	Full length protein	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	FRNDKCGDT IKIESPGYLT SPGYPHSYHP SEKCEWLIQA PDPYQRIMIN FNPFDLEDR DCKYDYVEVF DGENENGHFR GKFCGKIAPP PVVSSGPFLF IKFVSDYETH GAGFSIRYEI FKRGPECSQN YTPSGVIKS PGFPEKYPNS LECTYMFVP KMSEILEFE SFDLEPDSNP PGGMFCRYDR LEWDGFPDV GPHIGRYCGQ KTPGRIRSSS GILSMVFYTD SAIKEGFSA NYSVLQSSVS EDFKCMEALG MESGEIHSQ ITASSQYSTN WSAERSRLNY PENGWTPGED SYREWIQVDL GLLRFVTAVG TQGAISKETK KKYVVKTYKI DVSSNGEDWI TIKEGNKPV L FQGNTNPTDV VVAVFPKPLI TRFVRIKPAT WETGISMRF E VYGCKITDYP CSGMLGMVSG LISDSQITSS NQGDRNWMPE NIRLVTSRSG WALPPAPHSY INEWLQIDLG EEKIVRGI I QGGKHRENKV FMRKFKIGYS NNGSDWKMIM DDSKRKAKSF EGNNNYDTPE LRTPALSTR FIRYPERAT HGGLGLRMEL LGCEVEAPTA GPTTPNGNLV DECDDDQANC HSGTGDDFQL TGGTTVLATE KPTVIDSTIQ SGIK	
Predicted molecular weight	97 kDa	

Amino acids 22 to 644

Additional sequence information This product is for the mature full length protein. The signal peptide is not included. Fused with a human IgG1 Fc tag (Pro 100–Lys 330; P01857) at the C-terminus (AAH07533).

Specifications

Our **Abpromise guarantee** covers the use of **ab221023** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE
Functional Studies

Form Lyophilized

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
pH: 7.4
Constituents: 0.61% Tris, 0.75% Glycine, 5% Trehalose, Sodium chloride, L-Arginine

Lyophilized from 0.22 µm filtered solution.
This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution Reconstitute with sterile deionized water to a concentration of 200 µg/ml.

General Info

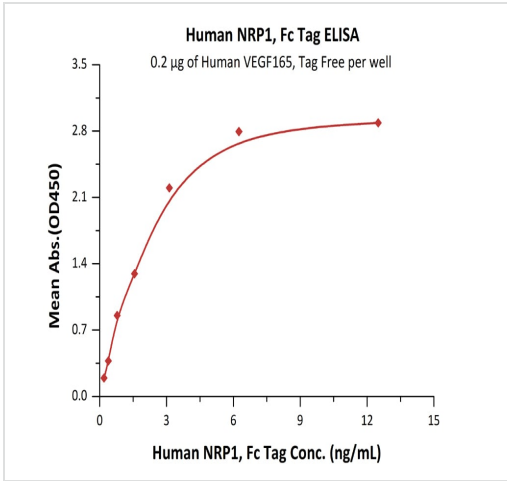
Function The membrane-bound isoform 1 is a receptor involved in the development of the cardiovascular system, in angiogenesis, in the formation of certain neuronal circuits and in organogenesis outside the nervous system. It mediates the chemorepulsant activity of semaphorins. It binds to semaphorin 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. It may also induce apoptosis by sequestering VEGF-165. May bind as well various members of the semaphorin family. Its expression has an averse effect on blood vessel number and integrity.

Tissue specificity The expression of isoforms 1 and 2 does not seem to overlap. Isoform 1 is expressed by the blood vessels of different tissues. In the developing embryo it is found predominantly in the nervous system. In adult tissues, it is highly expressed in heart and placenta; moderately in lung, liver, skeletal muscle, kidney and pancreas; and low in adult brain. Isoform 2 is found in liver hepatocytes, kidney distal and proximal tubules.

Sequence similarities Belongs to the neuropilin family.
Contains 2 CUB domains.
Contains 2 F5/8 type C domains.
Contains 1 MAM domain.

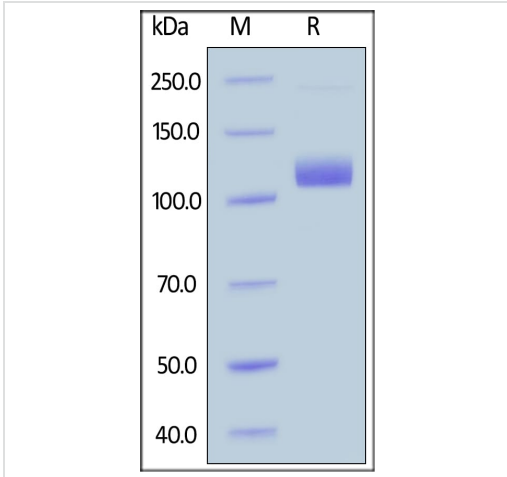
Cellular localization Secreted and Cell membrane.

Images



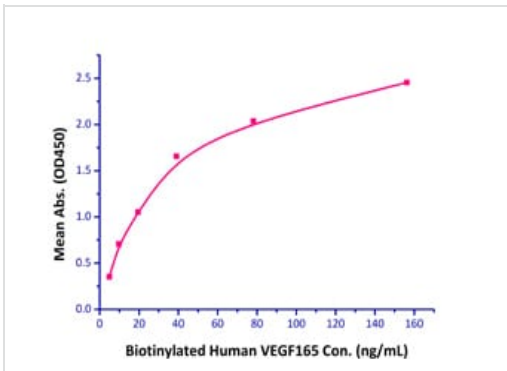
Immobilized Human VEGF165 (Tag Free) at 2 µg/mL (100 µL/well) can bind Human NRP1 (Fc Tag) with a linear range of 0.2-3 ng/mL (QC tested).

Functional Studies - Recombinant human Neuropilin 1 protein (Fc Chimera Active) (ab221023)



SDS-PAGE analysis of ab221023 under reducing conditions, stained overnight with Coomassie Blue. As a result of glycosylation, the reduced protein migrates as 120-125 kDa.

SDS-PAGE - Recombinant human Neuropilin 1 protein (Fc Chimera Active) (ab221023)



Immobilized ab221023 at 2 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165 with a linear range of 5-40 ng/mL.

Functional Studies - Recombinant human Neuropilin 1 protein (Fc Chimera Active) (ab221023)

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