

Synonym

NRP1,Neuropilin-1,NRP,VEGF165R,CD304

Source

Human Neuropilin-1, Mouse IgG2a Fc Tag(NR1-H5253) is expressed from human 293 cells (HEK293). It contains AA Phe 22 - Lys 644 (Accession # [AAH07533.1](#)).

Predicted N-terminus: Phe 22

Molecular Characterization

NRP1(Phe 22 - Lys 644) AAH07533.1	mFc(Glu 98 - Lys 330) P01863
--------------------------------------	---------------------------------

This protein carries a mouse IgG2a Fc tag at the C-terminus

The protein has a calculated MW of 96.7 kDa. The protein migrates as 110-130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

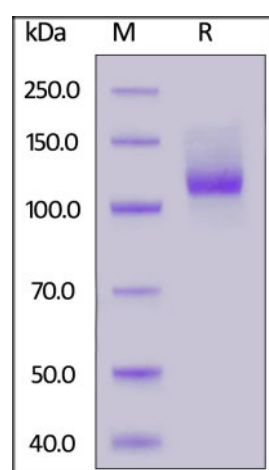
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

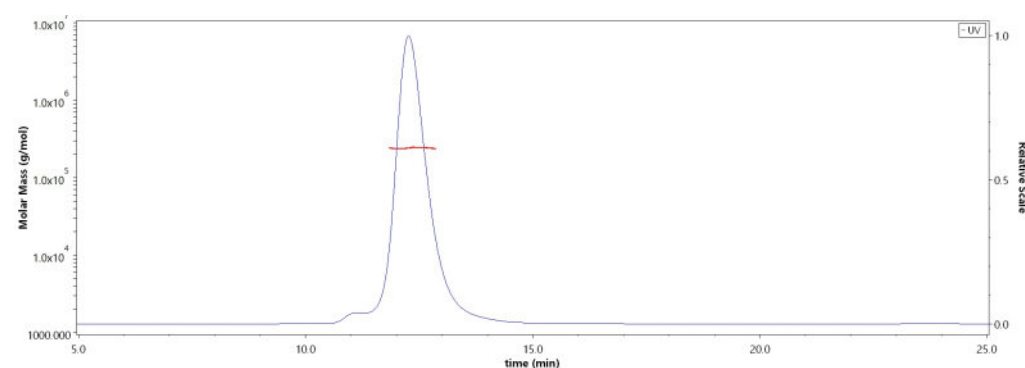
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

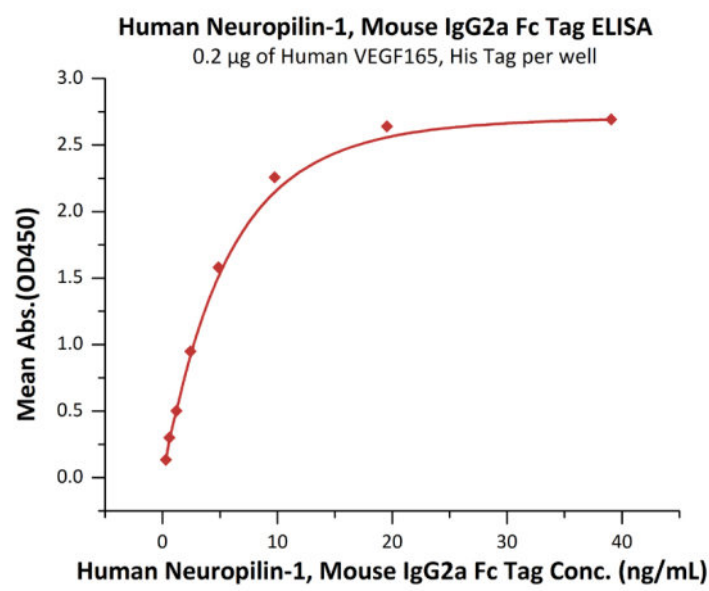
SDS-PAGE

Human Neuropilin-1, Mouse IgG2a Fc 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%.

Bioactivity-ELISA**SEC-MALS**

The purity of Human Neuropilin-1, Mouse IgG2a Fc Tag (Cat. No. NR1-H5253) is more than 90% and the molecular weight of this protein is around 230-250 kDa verified by SEC-MALS.

[Report](#)



Immobilized Human VEGF165, His Tag (Cat. No. VE5-H5248) at 2 µg/mL (100 µL/well) can bind Human Neuropilin-1, Mouse IgG2a Fc Tag (Cat. No. NR1-H5253) with a linear range of 0.2-5 ng/mL (QC tested).

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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.