

# Human Neuropilin-2 / NRP2 Protein (His Tag)

Catalog Number: 10695-H08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

Neuropilin-2; NP2; NPN2; PRO2714; VEGF165R2

### Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Tyr 855) of human Neuropilin2 isoform 2 (NP\_003863.2) was expressed with a C-terminal polyhistidine tag.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA.**

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Gln 23

### Molecular Mass:

The recombinant human NRP2 consists of 844 amino acids and has a calculated molecular mass of 95 kDa. The apparent molecular mass of rhNRP2 is approximately 100-110 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

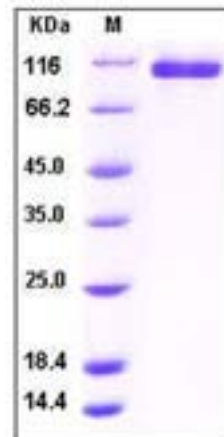
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Neuropilin-2 (NRP-2) which is related to NRP-1, is a type I? transmembrane glycoprotein and has the structure characteristic with five main extracellular domains: two complement binding (CUB) domains, two coagulation factor V/VIII homology domains, and a MAM (meprin, tyrosine phosphatase domain) region. NRP-2 is a receptor capable of binding two disparate ligands, class III semaphorins (SEMA) and vascular endothelial growth factors (VEGF), and thus regulates two diverse systems by activating cellular signaling pathways via interacting with other cell surface receptors such as VEGF receptors and plexins. NRP-2 is well known for its role in facilitating axonal guidance during the development of the neuronal system, and additionally, it is also expressed in vascular endothelial cells and lymphatic endothelium where it affects proliferation, migration, angiogenesis, as well as formation of small lymphatic vessels and capillaries. Recent study has identified NRP-2 as a polysialylated protein expressed in human dendritic cells and modulates DC-T cell Interactions. Nearly all tumor cells express neuropilins and NRP-2 is predominantly expressed in neuronal tumors and melanomas. Furthermore, it is suggested that as the specific ligand for NRP-2, SEMA 3F inhibits tumor angiogenesis and metastasis.

## References

1.Chen H. et al., 1997, Neuron. 19: 547-59. 2.Bielenberg DR. et al., 2006, Exp Cell Res. 312: 584-93. 3.Yuan L. et al., 2002, Development. 129: 4797-806.

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