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

Catalog No. PKSH030458

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description		
Synonyms	Neuropilin-2;NP2;NPN2;PRO2714;VEGF165R2	
Species	Human	
Expression Host	HEK293 Cells	
Sequence	Met 1-Tyr 855	
Accession	NP_003863.2	
Calculated Molecular Weight	95.0 kDa	
Observed molecular weight	100-110 kDa	
Tag	C-His	
Bioactivity	Measured by its binding ability in a functional ELISA.	
Properties		
Purity	> 97 % as determined by reducing SDS-PAGE.	
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.	
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.	
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.	
Reconstitution	Please refer to the printed manual for detailed information.	
Data		

Data

KDa	MK	R
116	-	-
66.2	-	
45.0	-	
35.0	-	
25.0	-	
18.4	-	
14.4	-	

> 97 % as determined by reducing SDS-PAGE.

Background

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

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V/VIII homology domains, and a MAM (meprin, tyrosine phosphatase domain) region. NRP-2 is a receptor capable of binding two disparate ligands, classIII 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.