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

Catalog Number: PKSH031480

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

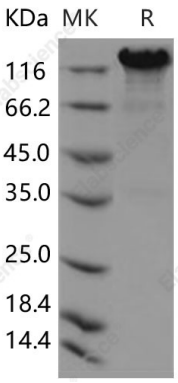
Description

Species	Human
Source	HEK293 Cells-derived Human Neuropilin-2/NRP2 protein Met 1-Tyr855, with an C-terminal hFc
Calculated MW	120.7 kDa
Observed MW	119-129 kDa
Accession	NP_003863.2
Bio-activity	Measured by its binding ability in a functional ELISA. 2. Immobilized human VEGFC-His at 10 μg/mL (100 μL/well) can bind human NRP2-Fc, the EC_{50} of human NRP2-Fc is 0.1-0.5 μg/mL.

Properties

Purity	> 95% 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% Tween 80 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



> 95 % 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 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 the formation of small lymphatic vessels and capillaries. A recent study has identified NRP-2 as a polysialylation 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.

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