# Data Sheet (Cat.No.TMPY-03763)

TargetMol

## Neuropilin-2 Protein, Human, Recombinant (hFc)

### General Information

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| Synonyms: | Neuropilin-2;NPN2;neuropilin 2;PRO2714;VEGF165R2;NP2 |
| Protein Construction: | A DNA sequence encoding the human NRP2 (NP_003863.2)(Met1-Tyr855) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Gln 23 |
| Species: | Human |
| Expression Host: | HEK293 Cells |
| Accession: | O60462-3 |
| Molecular Weight: | 120.7 kDa (predicted); 119-129 kDa (reducing conditions) |

### QC Testing

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| Biological Activity: | 1.Measured by its binding ability in a functional ELISA.<br>2. Immobilized human VEGFC-His at 10μg/mL (100μL/well) can bind human NRP2-Fc , the EC50 of human NRP2-Fc is 0.1-1μg/mL. |
| Purity: | > 90 % as determined by SDS-PAGE |
| Endotoxin: | < 1.0 EU/μg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein 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, 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 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.

Reference

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