



Recombinant Protein Technical Manual

Recombinant Mouse Nogo Receptor/NgR Protein (His & Fc Tag)(Active) RPES4712

Product Data:

Product SKU: RPES4712

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_075358.1

Protein Information:

Molecular Mass: 73.8 kDa

AP Molecular Mass: 9500 kDa

Tag: C-His-Fc

Bio-activity: 1. Measured by its binding ability in a functional ELISA. 2. Immobilized recombinant Mouse RTN4R Fc Chimera at 2 µg/ml (100 µl/well) can bind biotinylated human RTN4 (GST Tag) with a linear range of 0.16-2.5 µg/ml.

Purity: > 85 % as determined by SDS-PAGE

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

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: NgR;NgR1;NOGOR;Rtn4r

Immunogen Information:

Sequence: Met 1-Ser 447

Background:

Reticulon 4 receptor (RTN4R), also known as Nogo-66 Receptor (NgR), is a glycosylphosphoinositol (GPI)-anchored protein that belongs to the Nogo receptor family including three members. Mouse RTN4R cDNA contains 10 LRP (Leucine-rich) repeats. RTN4R is expressed predominantly in neurons and their axons in the central nervous systems (CNS). As a receptor for myelin-derived proteins Nogo, myelin-associated glycoprotein (MAG), and myelin oligodendrocyte glycoprotein (OMG), RTN4R mediates axonal growth inhibition and may play a role in regulating axonal regeneration and plasticity in the adult CNS. It has been shown that RTN4R performs its inhibitory actions by interacting with the p75 neurotrophin receptor (p75NTR), a TNFRSF member also known for modulating the activities of the Trk family and for inducing apoptosis in neurons and oligodendrocytes. RTN4R may be proposed as a potential drug target for treatment of various neurological conditions such as spinal cord injury, CNS lesions, peripheral nerve injury, stroke and Alzheimer's disease (AD). Additionally, RTN4R may play a role in regulating the function of the gap junctions.