

Recombinant Mouse Nogo Receptor/NgR Protein (His Tag)

Catalog No. PKSM040861

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

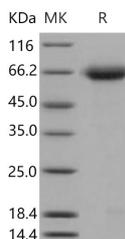
Description

Synonyms	NgR;NgR1;NOGOR;Rtn4r
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Ser 447
Accession	NP_075358.1
Calculated Molecular Weight	47.0 kDa
Observed molecular weight	65 kDa
Tag	C-His
Bioactivity	Immobilized recombinant Mouse RTN4R at 2 µg/ml (100 µl/well) can bind biotinylated human RTN4 (GST Tag) with a linear range of 0.04-0.625 µg/ml.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
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



> 97 % as determined by reducing SDS-PAGE.

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

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(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.