## Recombinant Mouse Nogo Receptor/NgR Protein (His Tag)

## Catalog Number: PKSM040861

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

Description	
Species	Mouse
Source	HEK293 Cells-derived Mouse Nogo Receptor/NgR protein Met 1-Ser 447, with an C-
	terminal His
Calculated MW	47.0 kDa
Observed MW	65 kDa
Accession	NP_075358.1
<b>Bio-activity</b>	1. Immobilized recombinant Mouse RTN4R at 2 $\mu$ g/ml (100 $\mu$ l/well) can bind
	biotinylated human RTN4 (GST Tag) with a linear range of 0.04-0.625 $\mu$ g/ml.
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 $< -20^{\circ}$ 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	
	KDa MK R
	116
	66.2

> 97 % as determined by reducing SDS-PAGE.

45.0 35.0

25.0

18.4 14.4

Background

## **Elabscience**®

Reticulon 4 receptor (RTN4R), also known as Nogo-66 Receptor (NgR), is a glycosylphosphoinositol (GPI)-anchored protein that belongs to the Nogo recptor 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.