Nogo Receptor/NgR Protein, Mouse (HEK293, His)

Cat. No.:	HY-P71158
Synonyms:	Reticulon-4 Receptor; Nogo Receptor; NgR; Nogo-66 Receptor; RTN4R; NOGOR
Species:	Mouse
Source:	HEK293
Accession:	Q99PI8 (C27-S447)
Gene ID:	65079
Molecular Weight:	75-85 kDa

PROPERTIES

AA Sequence	C P G A C V C Y N E P K V T T S C P Q Q G L Q A V P T G I P A S S Q R I F L H G N R I S H V P A A S F Q S C R N L T I L W L H S N A L A R I D A A A F T G L T L L E Q L D L S D N A Q L H V V D P T T F H G L G H L H T L H L D R C G L R E L G P G L F R G L A A L Q Y L Y L Q D N N L Q A L P D N T F R D L G N L T H L F L H G N R I P S V P E H A F R G L H S L D R L L L H Q N H V A R V H P H A F R D L G R L M T L Y L F A N N L S M L P A E V L M P L R S L Q Y L R L N D N P W V C D C R A R P L W A W L Q K F R G S S S E V P C N L P Q R L A D R D L K R L A A S D L E G C A V A S G P F R P I Q T S Q L T D E E L L S L P K C C Q P D A A D K A S V L E P G R P A S A G N A L K G R V P P G D T P P G N G S G P R H I N D S P F G T L P S S A E P P L T A L R P G G S E P P G L P T T G P R R R P G C S R K N R T R S H C R L G Q A G S G A S G T G D A E G S
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	The Nogo Receptor/NgR Protein serves as a receptor for RTN4, OMG, and MAG, as well as for the sialylated gangliosides

GT1b and GM1. Additionally, it functions as a receptor for chondroitin sulfate proteoglycans and can bind heparin. Intracellular signaling cascades are initiated through the coreceptor NGFR, leading to the activation of Rho and subsequent reorganization of the actin cytoskeleton. This signaling mechanism mediates axonal growth inhibition and plays a crucial role in regulating axon regeneration and neuronal plasticity within the adult central nervous system. Furthermore, Nogo Receptor/NgR is involved in postnatal brain development, playing a necessary role in axon migration across the brain midline and the formation of the corpus callosum. It also provides protection against apoptosis for motoneurons, potentially through interaction with MAG. Working in conjunction with RTN4 and LINGO1, it regulates neuronal precursor cell motility during cortical development. Like other family members, Nogo Receptor/NgR contributes to restricting the number of dendritic spines and synapses formed during brain development. It forms homodimers and interacts with various proteins, including MAG, RTN4, NGFR, LINGO1, and OLFM1, highlighting its multifaceted roles in cellular signaling and neural development.

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