

## Nogo Receptor/NgR Protein, Human (HEK293, His)

Cat. No.:	HY-P71157
Synonyms:	Reticulon-4 Receptor; Nogo Receptor; NgR; Nogo-66 Receptor; RTN4R; NOGOR
Species:	Human
Source:	HEK293
Accession:	Q9BZR6 (C27-S447)
Gene ID:	65078
Molecular Weight:	60-90 kDa

### PROPERTIES

AA Sequence	<pre> 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 V G I P   A A S Q R I F L H G N R I S H V P A A S   F R A C R N L T I L   W L H S N V L A R I   D A A A F T G L A L L E Q L D L S D N A   Q L R S V D P A T F   H G L G R L H T L H   L D R C G L Q E L G P G L F R G L A A L   Q Y L Y L Q D N A L   Q A L P D D T F R D   L G N L T H L F L H G N R I S S V P E R   A F R G L H S L D R   L L L H Q N R V A H   V H P H A F R D L G R L M T L Y L F A N   N L S A L P T E A L   A P L R A 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 S L P Q R L A G R   D L K R L A A N D L Q G C A V A T G P Y   H P I W T G R A T D   E E P L G 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 S P P G N G S G P   R H I N D S P F G T L P G S A E P P L T   A V R P E G S E P P   G F P T S 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 G G G T G D S E G   S           </pre>
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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. 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	Nogo Receptor/NgR Protein acts as a versatile receptor for RTN4, OMG, and MAG, mediating diverse cellular responses. It
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also functions as a receptor for sialylated gangliosides GT1b and GM1 and chondroitin sulfate proteoglycans, while exhibiting the ability to bind heparin. Intracellular signaling is initiated through the coreceptor NGFR, leading to the activation of Rho and subsequent reorganization of the actin cytoskeleton. Nogo Receptor/NgR plays a pivotal role in axonal growth inhibition, influencing axon regeneration, and neuronal plasticity in the adult central nervous system. Additionally, it is essential for postnatal brain development, contributing to axon migration across the brain midline and corpus callosum formation. Acting in conjunction with RTN4 and LINGO1, it regulates neuronal precursor cell motility during cortical development. Furthermore, it participates in restricting the number of dendritic spines and synapses formed during brain development. Existing as a homodimer, Nogo Receptor/NgR interacts with various ligands, including MAG, RTN4, OMG, NGFR, and LINGO1, forming a complex network of molecular interactions that underlie its multifaceted roles in cellular processes and neural development.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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