

# Recombinant Human RTN4RL1, His-tagged

**Cat. No.** RTN4RL1-161H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Recombinant Human Nogo-66 Receptor-Related Protein 3/NgR3 produced by transfected human cells is a secreted protein with sequence (Cys25-Ala419) of Human RTN4RL1 fused with a polyhistidine tag at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 25-419 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | Nogo-66 Receptor-Related Protein 3 (NgR3) has primary structures with NgR2 (NgRH1, NgRL3) and biochemical properties that are homologous to Nogo-66 receptor (NgR), and constitute a novel neuronal receptor protein family. NgR is GPI-anchored and contains eight leucine-rich repeats (LRR), it is the neuronal receptor for the myelin-associated proteins Nogo-A, OMgp (oligodendrocyte myelin glycoprotein), and MAG (myelin-associated glycoprotein) and mediates the inhibition of CNS axonal regeneration both in vitro and in vivo. NgR2 and NgR3 have similar structure and distinct but overlapping expression versus NgR. NgR2 can be metalloproteinase-cleaved to release a soluble ectodomain. NgR2 has also been shown to bind MAG, but ligands for NgR3 have not yet been determined. Mature human NgR3 shares 88%, 88%, 48% and 44% amino acid identity with mature mouse NgR3, rat NgR3, human NgRH1 and NgR, respectively. |
| <b>Form</b>             | Lyophilized from a 0.2 µM filtered solution of 20mM PB, 150mM NaCl, 5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | Threhalose, pH 7.2                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>AA Sequence</b>    | CPRDCVCYPAPMTVSCQAHNFAAIEGIPVDSERVFLQNNRIGLLQPGHFSPAMVTL<br>WIYSNNIT YIHPSTFEGFVHLEELDLGDNRLRLAPETFQGLVKLHALYLYKCGLSA<br>LPAGVFGGLHSLQYL YLQDNHIEYLQDDIFVDLVNLSHLFLHGNKLWSLGPGRGL<br>VNLDRLLLHENQLQWVHHKAFHD LRRLTTLFLFNNSLSELQGECLAPLGALEFLRLN<br>GNPWDCGCRARSLWEWLQRFGRGSSSAVPCVS PGLRHGQDLKLLRAEDFRNCTG<br>PASPHQIKSHTLTITTDRAARKEHHSPHGPTRSKGHPHGPRPGH RKP GK NCTNPRN<br>RNQISKAGAGKQAPELPDYAPDYQHKFSFDIMPTARPKRKGKCARRTPIRAPS GVQ<br>QAVDHHHHHH |
| <b>Endotoxin</b>      | Less than 0.1 ng/μg (1 IEU/μg).                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>         | Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage</b>        | Lyophilized protein should be stored at Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at                                                                                                                                                                                                                                                                                          |
| <b>Reconstitution</b> | Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.                                                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | RTN4RL1 reticulon 4 receptor-like 1 [ Homo sapiens ]                                                                                                             |
| <b>Official Symbol</b> | RTN4RL1                                                                                                                                                          |
| <b>Synonyms</b>        | RTN4RL1; reticulon 4 receptor-like 1; reticulon-4 receptor-like 1; DKFZp547J144; NgR3; NGRH2; nogo 66 receptor homolog 2; nogo receptor-like 2; Nogo-66 receptor |

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|------------------------------------------------|--------------------|
| homolog 2; Nogo-66 receptor-related protein 3; |                    |
| Gene ID                                        | 146760             |
| mRNA Refseq                                    | NM_178568          |
| Protein Refseq                                 | NP_848663          |
| MIM                                            | 610461             |
| UniProt ID                                     | Q86UN2             |
| Chromosome Location                            | 17p13.3            |
| Function                                       | receptor activity; |

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