

Human RTN4 / NOGO-A Protein (GST Tag)

Catalog Number: 13030-H09E



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ASY; DGU; DKFZp781L1143; HIGM4; Nbla00271; Nbla10545; NI220/250; NOGO; NOGO-A; Nogo-B; Nogo-C; NOGOC; NSP; NSP-CL; RTN-X; RTN4-A; RTN4-B1; RTN4-B2; RTN4-C; UDG; UNG1; UNG15; UNG2

Protein Construction:

A DNA sequence encoding the human RTN4 (NP_065393.1) N-terminal fragment (Met 1-Val 185) was fused with the GST tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 70 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human RTN4/GST chimera consists of 417 amino acids and has a predicted molecular mass of 46.2 kDa. It migrates as an approximately 48 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 150mM NaCl, 1mM DTT, 0.2mM GSH, pH 7.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

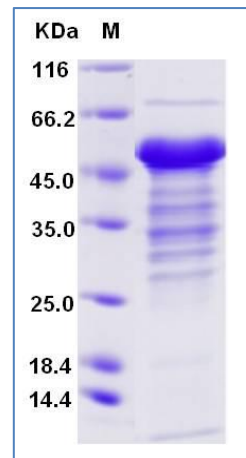
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Reticulon-4, also known as Foccen, Neurite outgrowth inhibitor, Nogo protein, Neuroendocrine-specific protein, Neuroendocrine-specific protein C homolog, RTN-x, Reticulon-5 and RTN4, is a multi-pass membrane protein which contains one reticulon domain. Isoform1 of RTN4 is specifically expressed in brain and testis and weakly in heart and skeletal muscle. Isoform2 of RTN4 is widely expressed except for the liver. Isoform3 of RTN4 is expressed in brain, skeletal muscle and adipocytes. Isoform4 of RTN4 is testis-specific. Reticulon-4 / RTN4 is a developmental neurite growth regulatory factor with a role as a negative regulator of axon-axon adhesion and growth, and as a facilitator of neurite branching. Reticulon-4 / RTN4 regulates neurite fasciculation, branching and extension in the developing nervous system. Reticulon-4 / RTN4 is involved in down-regulation of growth, stabilization of wiring and restriction of plasticity in the adult CNS. It regulates the radial migration of cortical neurons via an RTN4R-LINGO1 containing receptor complex. Isoform 2 of RTN4 reduces the anti-apoptotic activity of Bcl-xl and Bcl-2. This is likely consecutive to their change in subcellular location, from the mitochondria to the endoplasmic reticulum, after binding and sequestration. Isoform 2 and isoform 3 of RTN4 inhibit BACE1 activity and amyloid precursor protein processing.

References

1. Yang J., et al., 2000, Cytogenet. Cell Genet. 88:101-102. 2. Prinjha R., et al., 2000, Nature 403: 383-384. 3. Tagami S., et al., 2000, Oncogene 19: 5736-5746.

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