

RTN4 / Nogo Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS12409**Specification**

RTN4 / Nogo Antibody (Internal) - Product Information

Application	IF
Primary Accession	Q9NQC3
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	130kDa KDa

RTN4 / Nogo Antibody (Internal) - Additional Information**Gene ID** 57142**Other Names**

Reticulon-4, Foocen, Neurite outgrowth inhibitor, Nogo protein, Neuroendocrine-specific protein, NSP, Neuroendocrine-specific protein C homolog, RTN-x, Reticulon-5, RTN4, KIAA0886, NOGO

Target/Specificity

19 amino acid peptide from near the center of human NogoA. The sequence is present only in isoforms 1 and 6 as described by Uniprot Q9NQC3.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

RTN4 / Nogo Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

RTN4 / Nogo Antibody (Internal) - Protein Information**Name** RTN4 ([HGNC:14085](#))**Function**

Required to induce the formation and stabilization of endoplasmic reticulum (ER) tubules (PubMed:24262037, PubMed:25612671, PubMed:27619977). They regulate membrane morphogenesis in the ER by promoting tubular ER production (PubMed:24262037, PubMed:25612671, PubMed:27619977, PubMed:27786289). They influence nuclear envelope expansion, nuclear pore complex formation and proper localization of inner nuclear membrane proteins (PubMed:26906412). However each isoform have specific functions mainly depending on their tissue expression specificities (Probable).

Cellular Location

[Isoform A]: Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein; Cytoplasmic side Synapse {ECO:0000250|UniProtKB:Q99P72}. Note=Anchored to the membrane of the endoplasmic reticulum (ER) through 2 putative transmembrane domains. Localizes throughout the ER tubular network (PubMed:27619977) Co-localizes with TMEM33 at the ER sheets [Isoform C]: Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location

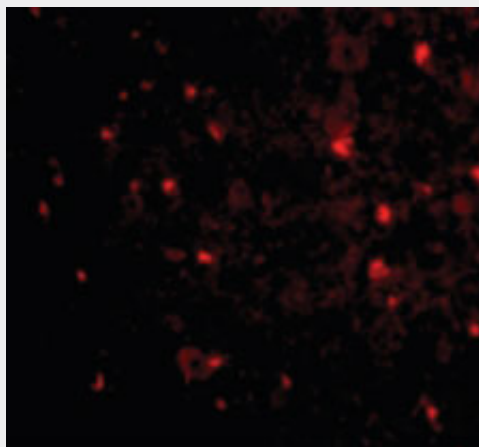
Isoform A: is specifically expressed in brain and testis and weakly in heart and skeletal muscle. Isoform B: widely expressed except for the liver. Highly expressed in endothelial cells and vascular smooth muscle cells, including blood vessels and mesenteric arteries (PubMed:15034570, PubMed:21183689). Isoform C: is expressed in brain, skeletal muscle and adipocytes. Isoform D is testis-specific.

RTN4 / Nogo Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RTN4 / Nogo Antibody (Internal) - Images



Immunofluorescence of NogoA in Mouse Brain cells with NogoA antibody at 20 ug/ml.

RTN4 / Nogo Antibody (Internal) - Background

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. Regulates neurite fasciculation,

branching and extension in the developing nervous system. Involved in down-regulation of growth, stabilization of wiring and restriction of plasticity in the adult CNS. Regulates the radial migration of cortical neurons via an RTN4R-LINGO1 containing receptor complex (By similarity). Isoform 2 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 inhibit BACE1 activity and amyloid precursor protein processing.

RTN4 / Nogo Antibody (Internal) - References

Yang J.,et al.Cytogenet. Cell Genet. 88:101-102(2000).
Prinjha R.,et al.Nature 403:383-384(2000).
Tagami S.,et al.Oncogene 19:5736-5746(2000).
Zhou Z.M.,et al.Reproduction 123:227-234(2002).
Oertle T.,et al.J. Mol. Biol. 325:299-323(2003).