

**RTN4 Antibody (N-Term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21919a****Specification**

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**RTN4 Antibody (N-Term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O9NQC3</a>
Other Accession	<a href="#">O99P72</a> , <a href="#">O9JK11</a>
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	129931

**RTN4 Antibody (N-Term) - 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**

This RTN4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 28-58 amino acids from human RTN4.

**Dilution**

WB~~1:2000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

RTN4 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

**RTN4 Antibody (N-Term) - 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

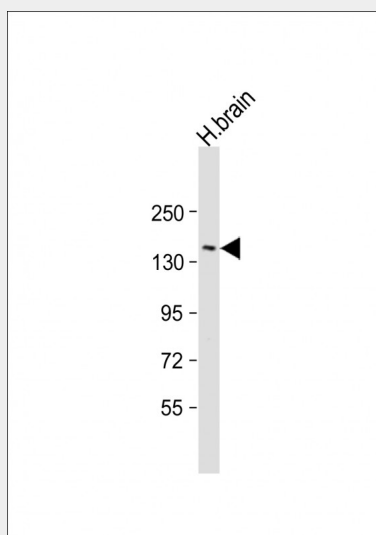
Isoform A: is specifically expressed in brain and testis and weakly in heart and skeletal muscle. Isoform B: widely expressed except for the liver. Highly expressed in endothelial cells and vascular smooth muscle cells, including blood vessels and mesenteric arteries (PubMed:[15034570](#), PubMed:[21183689](#)).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

#### RTN4 Antibody (N-Term) - 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 Antibody (N-Term) - Images



Anti-RTN4 Antibody (N-Term) at 1:2000 dilution + human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 130 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### **RTN4 Antibody (N-Term) - 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 Antibody (N-Term) - References**

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Prinjha R.,et al.Nature 403:383-384(2000).  
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