

**Anti-Nogo A Antibody**  
Catalog # ABO10547

**Specification**

**Anti-Nogo A Antibody - Product Information**

Application **WB, IHC**  
Primary Accession [O9NOC3](#)  
Host **Rabbit**  
Reactivity **Human, Mouse, Rat**  
Clonality **Polyclonal**  
Format **Lyophilized**

**Description**

Rabbit IgG polyclonal antibody for Reticulon-4(RTN4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Nogo A Antibody - Additional Information**

**Gene ID** 57142

**Other Names**

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

**Calculated MW**

129931 MW KDa

**Application Details**

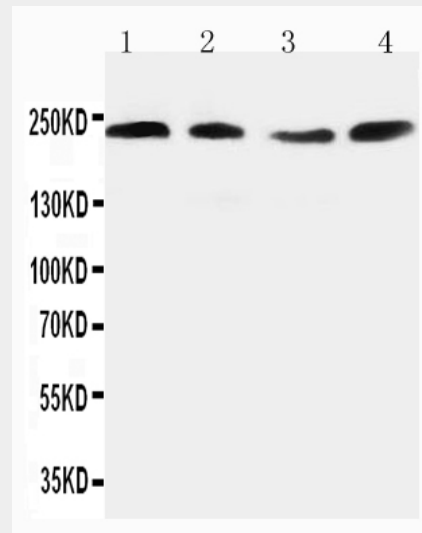
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat<br>Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human<br>

**Subcellular Localization**

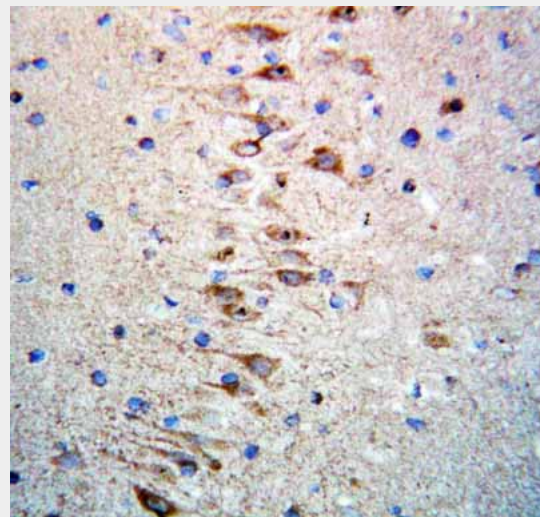
Endoplasmic reticulum membrane; Multi-pass membrane protein. Anchored to the membrane of the endoplasmic reticulum through 2 putative transmembrane domains.

**Tissue Specificity**

Isoform 1 is specifically expressed in brain



Anti-Nogo A antibody, ABO10547, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Brain Tissue Lysate Lane 3: Mouse Brain Tissue Lysate Lane 4: Mouse Brain Tissue Lysate



Anti-Nogo A antibody, ABO10547, IHC(P) IHC(P): Rat Brain Tissue

**Anti-Nogo A Antibody - Background**

Human neurite outgrowth inhibitor(NOGO) cDNAs encodes 3 splice variants: NOGOA,

and testis and weakly in heart and skeletal muscle. Isoform 2 is widely expressed except for the liver. Isoform 3 is expressed in brain, skeletal muscle and adipocytes. Isoform 4 is testis- specific.

**Protein Name**

Reticulon-4

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Nogo A(1170-1192aa NKNVKDAMAKIQAKIPGLKRKAE), different from the related rat sequence by two amino acids, and from the related mouse sequence by one amino acid.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Sequence Similarities**

Contains 1 reticulon domain.

**Anti-Nogo A Antibody - Protein Information**

**Name** RTN4 ([HGNC:14085](#))

**Function**

Required to induce the formation and stabilization of endoplasmic reticulum (ER) tubules (PubMed:<a href="http://www.uniprot.org/citations/27619977" target="\_blank">27619977</a>, PubMed:<a href="http://www.uniprot.org/citations/25612671" target="\_blank">25612671</a>),

NGOB and NOGOC. The longest cDNA, designated NOGOA, has an open reading frame of 1192 amino acids. It is a potent inhibitor of neurite growth and an IN-1 antigen produced by oligodendrocytes, and may allow the generation of new reagents to enhance CNS regeneration and plasticity. Nogo-A, a member of the Reticulon family, is expressed by oligodendrocytes and associates primarily with the endoplasmic reticulum. The acidic amino terminus of Nogo-A is detected at the cytosolic face of cellular membranes and may contribute to inhibition of axon regeneration at sites of oligodendrocyte injury. A multivalent form of the N terminus of Nogo-A affects the morphology of both neurons and other cell types.

PubMed:<a href="http://www.uniprot.org/citations/24262037" target="\_blank">24262037</a>). They regulate membrane morphogenesis in the ER by promoting tubular ER production (PubMed:<a href="http://www.uniprot.org/citations/27619977" target="\_blank">27619977</a>, PubMed:<a href="http://www.uniprot.org/citations/25612671" target="\_blank">25612671</a>, PubMed:<a href="http://www.uniprot.org/citations/24262037" target="\_blank">24262037</a>, PubMed:<a href="http://www.uniprot.org/citations/27786289" target="\_blank">27786289</a>). They influence nuclear envelope expansion, nuclear pore complex formation and proper localization of inner nuclear membrane proteins (PubMed:<a href="http://www.uniprot.org/citations/26906412" target="\_blank">26906412</a>). 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 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.

#### **Anti-Nogo A Antibody - 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](#)