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Anti-Nogo A Antibody
Catalog # ABO10547

Specification

Anti-Nogo A Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9NQC3
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, Foocen, 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
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

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 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 Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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: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.

Anti-Nogo A Antibody - Protocols

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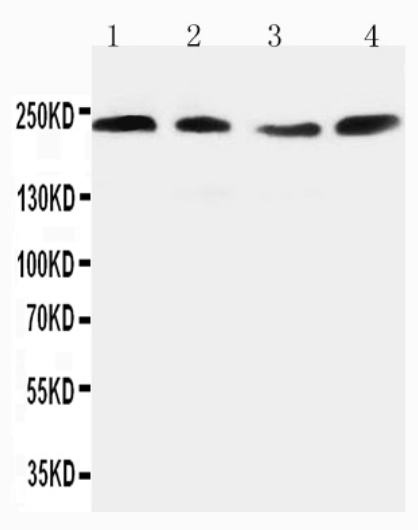
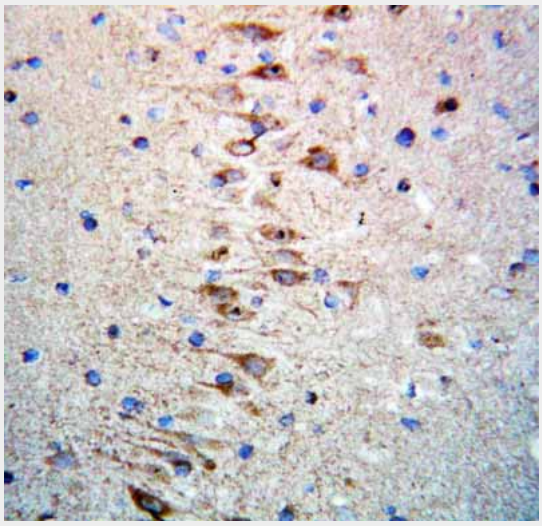
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Nogo A Antibody - Images



Anti-Nogo A antibody, ABO10547, Western blottingLane 1: Rat Brain Tissue LysateLane 2: Rat Brain Tissue LysateLane 3: Mouse Brain Tissue LysateLane 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, NOGOB 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.