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Nogo-A Rabbit pAb

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Catalog # AP94628

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q99P72
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	126613
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse RTN4 protein
Epitope Specificity	301-400/1192
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Endoplasmic reticulum membrane. Anchored to the membrane of the endoplasmic reticulum through 2 putative transmembrane domains.
SIMILARITY	Contains 1 reticulon domain.
SUBUNIT	Binds to RTN4R. Interacts with Bcl-xl and Bcl-2. Isoform 2 binds to NGBR and RTN3. Isoform 2 and isoform 3 interact with BACE1 and BACE2. Interacts with RTN4IP1. Interacts with ATL1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene belongs to the family of reticulon encoding genes. Reticulons are associated with the endoplasmic reticulum, and are involved in neuroendocrine secretion or in membrane trafficking in neuroendocrine cells. The product of this gene is a potent neurite outgrowth inhibitor which may also help block the regeneration of the central nervous system in higher vertebrates. Alternatively spliced transcript variants derived both from differential splicing and differential promoter usage and encoding different isoforms have been identified. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	68585
Other Names	Reticulon-4, Neurite outgrowth inhibitor, Nogo protein, Rtn4 {ECO:0000312|MGI:MGI:1915835}
Target/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.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=3 □g/Test
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Rtn4 {ECO:0000312|MGI:MGI:1915835}
Function	Required to induce the formation and stabilization of endoplasmic reticulum (ER) tubules. They regulate membrane morphogenesis in the ER by promoting tubular ER production. They influence nuclear envelope expansion, nuclear pore complex formation and proper localization of inner nuclear membrane proteins. However each isoform have specific functions mainly depending on their tissue expression specificities.
Cellular Location	[Isoform A]: Endoplasmic reticulum membrane; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:Q9NQC3}; Multi-pass membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:Q9NQC3}. Synapse. Note=Anchored to the membrane of the endoplasmic reticulum (ER) through 2 putative transmembrane domains Localizes throughout the ER tubular network. Co-localizes with TMEM33 at the ER sheets. {ECO:0000250|UniProtKB:Q9NQC3} [Isoform C]: Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q9NQC3}; Multi-pass membrane protein
Tissue Location	[Isoform A]: Expressed in cardiomyocytes (at protein level) (PubMed:32075961). Highly expressed in brain but not deteceted in aorta, femoral and carotid arteries (PubMed:15034570) Main isoform expressed in neurons (PubMed:23625008, PubMed:27786289) [Isoform B2]: Expressed in B-cells, bone marrow dendritic cells and macrophages (at protein level) [Isoform D]: Expressed at very low levels in neurons.

Background

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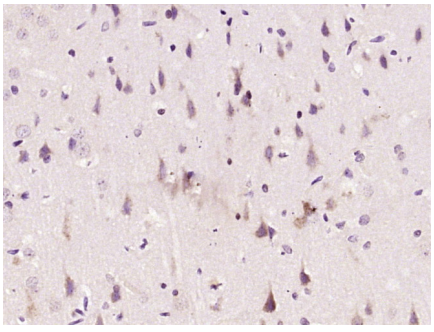
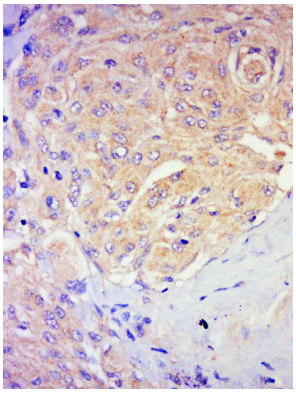
Images

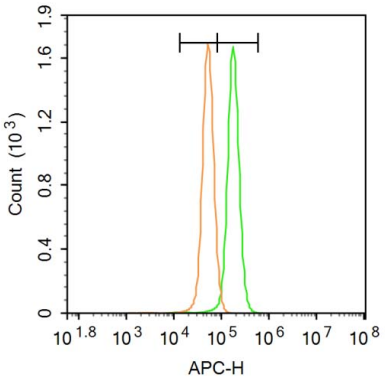


Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Nogo-A) Polyclonal Antibody, Unconjugated (AP94628) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Tissue/cell: human meningioma tissue; 4%



Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Nogo-A Polyclonal Antibody, Unconjugated(AP94628) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: A431. Primary Antibody (green line): Rabbit Anti-Nogo-A antibody (AP94628) Dilution: 1 µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody: Goat anti-rabbit IgG-AF647 Dilution: 1 µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.