

RTN4R Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51939

Product Information

Application	WB
Primary Accession	Q9BZR6
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50708

Additional Information

Gene ID	65078
Other Names	Reticulon-4 receptor, Nogo receptor, NgR, Nogo-66 receptor, RTN4R, NOGOR
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	RTN4R
Synonyms	NOGOR
Function	Receptor for RTN4, OMG and MAG (PubMed: 12037567 , PubMed: 12068310 , PubMed: 12089450 , PubMed: 12426574 , PubMed: 12839991 , PubMed: 16712417 , PubMed: 18411262 , PubMed: 19052207). Functions as a receptor for the sialylated gangliosides GT1b and GM1 (PubMed: 18411262). Besides, functions as a receptor for chondroitin sulfate proteoglycans (By similarity). Can also bind heparin (By similarity). Intracellular signaling cascades are triggered via the coreceptor NGFR (PubMed: 12426574). Signaling mediates activation of Rho and downstream reorganization of the actin cytoskeleton (PubMed: 16712417 , PubMed: 22325200). Mediates axonal growth inhibition (PubMed: 12839991 , PubMed: 19052207 , PubMed: 28892071). Plays a role in regulating axon regeneration and neuronal plasticity in the adult central nervous system. Plays a role in postnatal brain development. Required for normal axon migration across the brain midline and normal formation of the corpus callosum. Protects motoneurons against apoptosis; protection against apoptosis is probably mediated via interaction with MAG. Acts in conjunction with RTN4 and LINGO1 in regulating neuronal precursor cell motility during cortical development. Like other family

members, plays a role in restricting the number dendritic spines and the number of synapses that are formed during brain development (PubMed:[22325200](#)).

Cellular Location

Cell membrane; Lipid- anchor, GPI-anchor. Membrane raft. Cell projection, dendrite {ECO:0000250|UniProtKB:Q99PI8}. Cell projection, axon {ECO:0000250|UniProtKB:Q99PI8}. Perikaryon {ECO:0000250|UniProtKB:Q99M75}. Note=Detected along dendrites and axons, close to synapses, but clearly excluded from synapses {ECO:0000250|UniProtKB:Q99PI8}

Tissue Location

Widespread in the brain but highest levels in the gray matter. Low levels in heart and kidney; not expressed in oligodendrocytes (white matter).

Background

Receptor for RTN4, OMG and MAG. Mediates axonal growth inhibition and may play a role in regulating axonal regeneration and plasticity in the adult central nervous system. Acts in conjunction with RTN4 and LIGO1 in regulating neuronal precursor cell motility during cortical development (By similarity).

References

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Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
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Dunham I.,et al.Nature 402:489-495(1999).

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