

Product datasheet for **TA328650**

Nogo Receptor (RTN4R) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)GDSPPGNGSGPRHIND corresponding to amino acid residues 366-381 of the human Nogo receptor. Extracellular.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	reticulon 4 receptor
Database Link:	NP_075380 Entrez Gene 65079 Mouse Entrez Gene 113912 Rat Entrez Gene 65078 Human Q9BZR6



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Background:

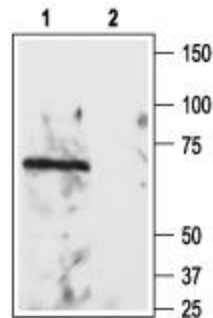
The Nogo receptor is a leucine-rich repeat (LRR) containing protein with a glycosylphosphatidylinositol (GPI) anchored C-terminus. The receptor was identified on the basis of its ability to bind with high affinity to Nogo-A a member of the reticulon family expressed in the cell membrane of oligodendrocytes. Nogo-A attracted attention when it was demonstrated that it is a myelin protein capable of inhibiting axonal growth following nerve injury. Other myelin proteins also identified as axonal growth inhibitors are the myelin-associated glycoprotein (MAG) a sialic-dependent immunoglobulin-like family member lectin (SIGLEC) and the oligodendrocyte myelin glycoprotein (OmgP) which is a GPI-anchored membrane protein. Remarkably, despite their structural diversity, all three axonal growth inhibitors bind to the Nogo receptor with high affinity. Since the Nogo receptor is a GPI-anchored protein it was expected that it would require another protein component to transduce the Nogo-A binding information into the responding neurons interior. Indeed, it was shown that the neurotrophin receptor p75 (p75NTR) interacts with Nogo receptor and a third protein termed LINGO-1 to mediate axonal growth inhibition signaling. We are pleased to offer a new antibody directed against a highly conserved epitope situated in the linker region between the LRRs and the GPI anchor. The antibody will work with human, mouse and rat samples and has been tested in western blot, immunocytochemistry and immunohistochemistry techniques.

Synonyms:

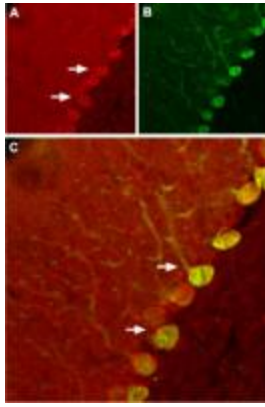
NGR; NOGOR

Protein Families:

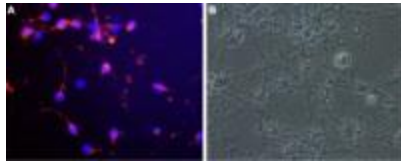
Druggable Genome

Product images:

Western blot analysis of rat brain lysate: 1. Anti-Nogo Receptor (extracellular) antibody, (1:200). 2. Anti-Nogo Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Nogo receptor in rat cerebellum. Immunohistochemical staining of rat cerebellum using Anti-Nogo Receptor (extracellular) antibody. A. Nogo receptor (red) appears in Purkinje cells (arrows). B. Staining of Purkinje nerve cells with mouse anti-calbindin D28K (a calcium binding protein, green). C. Confocal merge of Nogo receptor and calbindin D28K demonstrates some co-localization of these proteins.



Expression of Nogo receptor in rat cerebellar granule. Immunocytochemical staining of live cultured rat cerebellar granule. A. Cells were stained with Anti-Nogo Receptor (extracellular) antibody followed by goat-anti-rabbit AlexaFluor-555 secondary antibody (red). Nuclei were visualized with the cell permeable dye Hoechst 33342 (blue). B. Live view of the same field as in A.