

Nogo A (Central region)

Cat. # NM3641

Host Mouse Monoclonal IgG1

Size 100 µl

Background:

After central nervous system (CNS) injury, there is minimal regeneration of axonal projections through the injured region, which compromises functional recovery from these injuries. Various inhibitory molecules found in the myelin of axons in the CNS may limit regeneration through activation of inhibitory cell signaling pathways. Nogo was identified in myelin extracts using the monoclonal antibody IN-1, an antibody that allows modest axon regeneration after spinal cord injury. Nogo is expressed as three different proteins, Nogo-A, -B, and -C, which are members of the Reticulon family of ER anchoring proteins. Nogo-A is the full length protein, while Nogo-B contains 172 amino acids of the N-terminus and 188 amino acids of the C-terminus of Nogo-A, while Nogo-C contains only the 188 amino acid C-terminus of Nogo-A. These splice variants are all found in optic nerve, spinal cord, and cerebral cortex, but differ in expression in other neuronal and non-neuronal tissues. Thus, Nogo-A may be an important myelin-associated protein limiting axon regeneration after CNS injury.

References

- Chen, M.S. et al. (2000) Science 403:434.
 GrandPre, T. et al. (2000) Nature 403:439.
 Tessier-Lavigne, M. & Goodman, C.S. (2000) Science 287:813.

Immunogen:

Nogo A antibody was generated from a sequence corresponding to amino acids in the central region of rat Nogo A. This sequence has high homology to human and mouse Nogo A.

Applications:

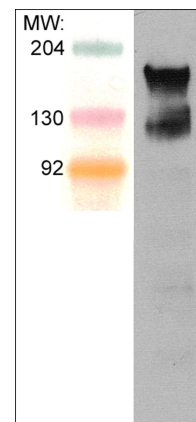
WB 1:500
 ELISA 1:1000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- SP1221 Semaphorin-3A (Central Region) Rabbit Polyclonal
 PP1301 Plexin A1 (Sema Domain) Rabbit Polyclonal
 NP2111 Neuropilin-1 (a1 CUB Domain) Rabbit Polyclonal
 SM1881 Semaphorin-4D (C-terminal Region) Mouse Monoclonal
 PP1841 Plexin B1 (C-terminal Region) Rabbit Polyclonal
 EP2731 EphA4 (Tyr-602), phospho-specific [Conserved site] Rabbit Polyclonal

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Western blot of postnatal day 1 rat brain lysate. The blot was probed with mouse monoclonal anti-Nogo A (Central region) antibody at 1:500.

Buffer and Storage:

Mouse monoclonal, protein A purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody detects a 180 kDa* protein corresponding to the molecular mass of Nogo A on SDS-PAGE immunoblots of postnatal day 1 rat brain.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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