R&D SYSTEMS
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Mouse Nogo-B Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6596

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Nogo-B in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) Nogo-B and recombinant rat (rr) Nogo-A (aa 2-172) is observed and less than 1% cross-reactivity with rhNogo-A, rrNogo-A (aa 544-725), and rrNogo-A (aa 1026-1091) is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Nogo-B Met1-Val183 Accession # NP_918941
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

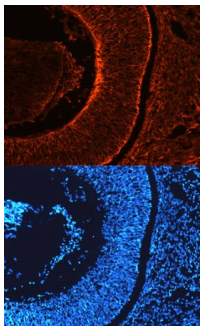
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

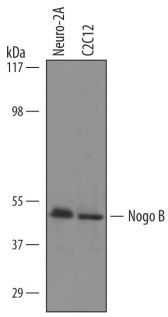
DATA

Immunohistochemistry



Nogo-B in Mouse Embryonic Retina. Nogo-B was detected in immersion fixed frozen sections of mouse embryonic retina (E13.5) using Sheep Anti-Mouse Nogo-B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6596) at 10 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to retina. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.

Western Blot



Detection of Mouse Nogo-B by Western Blot. Western blot shows lysates of Neuro-2A mouse neuroblastoma cell line and C2C12 mouse myoblast cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse Nogo-B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6596) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Nogo-B at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Nogo-B (A No-Go for neurite outgrowth Isoform B; also reticulon-4 isoform 2 and RTN-xS) is a 49-51 kDa member of the reticulon protein family. It is widely expressed, being reported everywhere but liver. Nogo-B appears to be principally expressed in the ER, but does have a receptor (NgBR) on cell surfaces. Intracellularly, Nogo-B is known to interact with Bcl-xl and Bcl-2, and may play in role in both apoptosis and angiogenesis. Mouse NOGO-B/B1 is a two transmembrane, 356 amino acid protein. It contains an N-terminal cytoplasmic domain (aa 1-182), two transmembrane segments (aa 183-203 and 273-293), an intervening luminal region (aa 204-272) and a C-terminal cytoplasmic domain (aa 294-356). Nogo-B contains multiple phosphorylation sites and undergoes acetylation. Caspase-7 cleaves Nogo-B between Asp15Ser16, generating a 40-42 kDa fragment. Nogo-B exists in two forms; B1 represents aa 1-168 spliced to aa 975-1162 of Nogo-A, while B2 represents aa 1-187 spliced to aa 975-1162 of Nogo-A. Over aa 1-183, mouse Nogo-B/B1 shares 76% aa identity with human Nogo-B/B1.

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