Human/Mouse Nogo-B Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6034

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Nogo-B in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Nogo-A and recombinant rat Nogo-A is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Nogo-B Met1-Val200 Accession # NP_722550
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.

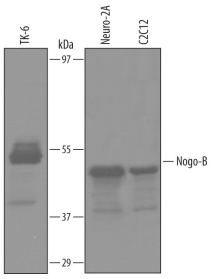
APPLICATIONS

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

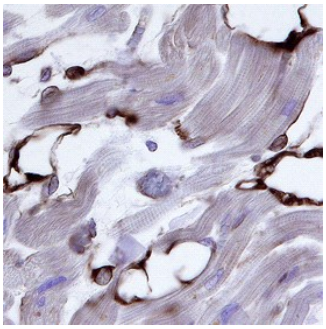
DATA

Western Blot



Detection of Human and Mouse Nogo-B by Western Blot. Western blot shows lysates of TK-6 human lymphoblast cell line, Neuro-2A mouse neuroblastoma cell line, and C2C12 mouse myoblast cell line. PVDF Membrane was probed with 1 µg/mL of Human/Mouse Nogo-B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6034) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Nogo-B at approximately 49 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



Nogo-B in Human Heart. Nogo-B was detected in immersion fixed paraffin-embedded sections of human heart using Human/Mouse Nogo-B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6034) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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. Human Nogo-B is a two transmembrane, 373 amino acid protein. It contains an N-terminal cytoplasmic domain (aa 1-199), two transmembrane segments (aa 200-219 and 315-335), a luminal region (aa 220-314) and a C-terminal cytoplasmic domain (aa 336-373). Nogo-B contains multiple phosphorylation sites and undergoes acetylation. Caspase-7 cleaves Nogo-B between Asp14Ser15, generating a 45-47 kDa fragment. Nogo-B exists in two forms; B1 represents aa 1-185 spliced to aa 1005-1192 of Nogo-A, while B2 represents aa 1-204 spliced to aa 1005-1192 of Nogo-A. Over aa 1-200 (of Nogo-A), human Nogo-B shares 76% aa identity with mouse Nogo-B.

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