

Nogo (L-20): sc-11033

BACKGROUND

CNS white matter is selectively inhibitory for axonal out-growth. Nogo (also designated NI250 and Reticulon 4-A) is an oligodendrocyte-specific member of the Reticulon family and is a component of CNS white matter that inhibits axon outgrowth, induces collapse of growth cones of chick dorsal root ganglion cells, and inhibits the spreading of 3T3 fibroblasts. Other members of the reticulon protein family do not inhibit axon extension and are thought to have a role in ER function. Nogo is expressed by oligodendrocytes but not by Schwann cells, and associates primarily with the endoplasmic reticulum. Nogo exists in three different splice forms, Nogo-A, -B and -C.

REFERENCES

- Schwab, M.E., et al. 1985. Dissociated neurons regenerate into sciatic but not optic nerve explants in culture irrespective of neurotrophic factors. *J. Neurosci.* 5: 2415-2423.
- Schwab, M.E., et al. 1988. Oligodendrocytes and CNS myelin are nonpermissive substrates for neurite growth and fibroblast spreading *in vitro*. *J. Neurosci.* 8: 2381-2393.

CHROMOSOMAL LOCATION

Genetic locus: RTN4 (human) mapping to 2p16.1; Rtn4 (mouse) mapping to 11 A3.3.

SOURCE

Nogo (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nogo of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11033 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nogo (L-20) is recommended for detection of Nogo A, Nogo B, reticulon (Rtn) and foccen of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nogo (L-20) is also recommended for detection of Nogo A, Nogo B, reticulon (Rtn) and foccen in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Nogo A: 220 kDa.

Molecular Weight of Nogo B: 55 kDa.

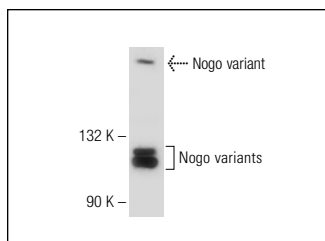
Molecular Weight of foccen: 29 kDa.

Positive Controls: mouse brain extract: sc-2253, HeLa whole cell lysate: sc-2200 or TE671 cell lysate: sc-2416.

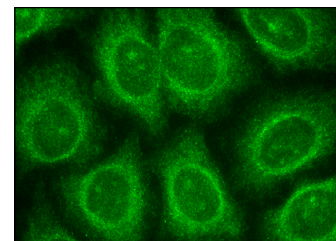
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Nogo (L-20): sc-11033. Western blot analysis of Nogo expression in TE671 whole cell lysate.



Nogo (L-20): sc-11033. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Jurewicz, A., et al. 2007. Soluble Nogo A, an inhibitor of axonal regeneration, as a biomarker for multiple sclerosis. *Neurology* 68: 283-287.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Nogo (C-4): sc-271878**, our highly recommended monoclonal alternative to Nogo (L-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Nogo (C-4): sc-271878**.