

Nogo (N-18): sc-11027

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.

CHROMOSOMAL LOCATION

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

SOURCE

Nogo (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nogo of human 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-11027 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nogo (N-18) is recommended for detection of Nogo A, Nogo B and foci 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 (N-18) is also recommended for detection of Nogo A, Nogo B and foci in additional species, including porcine.

Suitable for use as control antibody for Nogo siRNA (h): sc-43974, Nogo siRNA (m): sc-42213, Nogo shRNA Plasmid (h): sc-43974-SH, Nogo shRNA Plasmid (m): sc-42213-SH, Nogo shRNA (h) Lentiviral Particles: sc-43974-V and Nogo shRNA (m) Lentiviral Particles: sc-42213-V.

Molecular Weight of Nogo A: 220 kDa.

Molecular Weight of Nogo B: 55 kDa.

Molecular Weight of foci: 29 kDa.

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

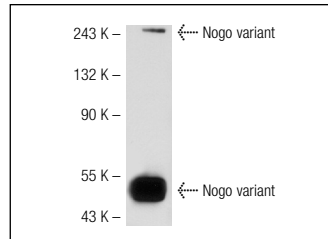
STORAGE

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

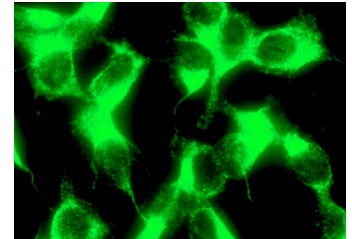
RESEARCH USE

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

DATA



Nogo (N-18): sc-11027. Western blot analysis of Nogo expression in TE671 whole cell lysate.



Nogo (N-18): sc-11027. Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Kim, J.E., et al. 2003. Axon regeneration in young adult mice lacking Nogo-A/B. *Neuron* 37: 187-199.
- Zhou, C., et al. 2003. HBO suppresses Nogo A, Ng-R, or Rho A expression in the cerebral cortex after global ischemia. *Biochem. Biophys. Res. Commun.* 309: 368-376.
- O'Neill, P., et al. 2004. Nogo and Nogo-66 receptor in human and chick: implications for development and regeneration. *Dev. Dyn.* 231: 109-121.
- Gil, V., et al. 2006. Nogo-A expression in the human hippocampus in normal aging and in Alzheimer disease. *J. Neuropathol. Exp. Neurol.* 65: 433-444.
- Wojcik, S., et al. 2007. Nogo is increased and binds to BACE1 in sporadic inclusion-body myositis and in A β PP-overexpressing cultured human muscle fibers. *Acta Neuropathol.* 114: 517-526.
- Paszowski, J.J., et al. 2007. Evidence supporting changes in Nogo-B levels as a marker of neointimal expansion but not adaptive arterial remodeling. *Vascul. Pharmacol.* 46: 293-301.
- Kritz, A.B., et al. 2008. *In vivo* modulation of Nogo B attenuates neointima formation. *Mol. Ther.* 16: 1798-1804.
- Gao, Y., et al. 2009. Nogo-66 regulates Nanog expression through Stat3 pathway in murine embryonic stem cells. *Stem Cells Dev.* 19: 53-60.
- Wang, J., et al. 2010. Localization of an axon growth inhibitory molecule Nogo and its receptor in the spinal cord of mouse embryos. *Brain Res.* 1306: 8-17.
- Lee, J.E., et al. 2012. Nongenomic STAT5-dependent effects on Golgi apparatus and endoplasmic reticulum structure and function. *Am. J. Physiol., Cell Physiol.* 302: C804-C820.


 MONOS
Satisfaction
Guaranteed

Try **Nogo (C-4): sc-271878**, our highly recommended monoclonal alternative to Nogo (N-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Nogo (C-4): sc-271878**.