

# NIMP (G-14): sc-161130

## BACKGROUND

Nogo 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. 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. NIMP (NOGO-interacting mitochondrial protein), also known as RTN4IP1 (Reticulon-4-interacting protein 1), is a 396 amino acid mitochondrial protein that contains a C-terminal oxidoreductaselike domain and numerous sites for phosphorylation. NIMP is expressed in mitochondrial-rich tissue such as kidney, heart, skeletal muscle and specific regions within the nervous system. Through interaction with Nogo, it is likely that NIMP plays a role in Nogo-induced inhibition of neurite growth. There are three isoforms of NIMP that are produced as a result of alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: RTN4IP1 (human) mapping to 6q21; Rtn4ip1 (mouse) mapping to 10 B2.

## SOURCE

NIMP (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NIMP 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-161130 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NIMP (G-14) is recommended for detection of NIMP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NIMP (G-14) is also recommended for detection of NIMP in additional species, including equine, bovine, porcine and canine.

Suitable for use as control antibody for NIMP siRNA (h): sc-95051, NIMP siRNA (m): sc-149975, NIMP shRNA Plasmid (h): sc-95051-SH, NIMP shRNA Plasmid (m): sc-149975-SH, NIMP shRNA (h) Lentiviral Particles: sc-95051-V and NIMP shRNA (m) Lentiviral Particles: sc-149975-V.

Molecular Weight of NIMP isoforms: 44/32/24 kDa.

Positive Controls: Mouse heart extract: sc-2254.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.