

# NGL-1 (C-17): sc-51377

## BACKGROUND

NGL-1 (Netrin G1 ligand), also known as leucine-rich repeat-containing protein 4C, is a single pass type I membrane protein that acts as a cell adhesion molecule. It contains nine leucine-rich repeats (LRR) and one Ig-like C2-type domain. NGL-1 is predominantly expressed in the striatum and the cerebral cortex of both the embryonic and adult brain. NGL-1 specifically interacts with Netrin G1 (a molecule involved in axon guidance in the developing central nervous system) via its LRR region. NGL-1 plays a role in the regulation of neurite outgrowth of developing thalamic neurons. Soluble NGL-1 inhibits thalamic axon outgrowth while NGL-1 that is bound to the surface of developing thalamocortical axons stimulates growth. NGL-1 also interacts with Whirlin possibly stabilizing interstereociliar links.

## REFERENCES

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- Delprat, B., et al. 2005. Myosin XVa and whirlin, two deafness gene products required for hair bundle growth, are located at the stereocilia tips and interact directly. *Hum. Mol. Genet.* 14: 401-410.
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- Meerabux, J.M., et al. 2005. Human netrin-G1 isoforms show evidence of differential expression. *Genomics* 86: 112-116.
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- Amos, C.I., et al. 2006. High-density SNP analysis of 642 Caucasian families with rheumatoid arthritis identifies two new linkage regions on 11p12 and 2q33. *Genes Immun.* 7: 277-286.
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## CHROMOSOMAL LOCATION

Genetic locus: LRRC4C (human) mapping to 11p12; Lrrc4c (mouse) mapping to 2 E1.

## SOURCE

NGL-1 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NGL-1 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-51377 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NGL-1 (C-17) is recommended for detection of mature NGL-1 and Netrin-G1 ligand precursor 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).

NGL-1 (C-17) is also recommended for detection of mature NGL-1 and Netrin-G1 ligand precursor in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NGL-1 siRNA (h): sc-106302, NGL-1 siRNA (m): sc-149953, NGL-1 shRNA Plasmid (h): sc-106302-SH, NGL-1 shRNA Plasmid (m): sc-149953-SH, NGL-1 shRNA (h) Lentiviral Particles: sc-106302-V and NGL-1 shRNA (m) Lentiviral Particles: sc-149953-V.

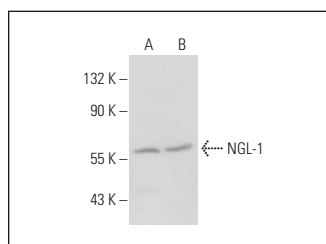
Molecular Weight of NGL-1: 72 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or Jurkat whole cell lysate: sc-2204.

## 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



NGL-1 (C-17): sc-51377. Western blot analysis of NGL-1 expression in IMR-32 (A) and Jurkat (B) whole cell lysates.

## 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.