

NgR3 (B-7): sc-398584

BACKGROUND

NgR3 (Nogo-66 receptor-related protein 3), also known as RTN4RL1 (reticulon 4 receptor-like 1), NGRH2 or NGRL2 (Nogo receptor-like 2), is a 441 amino acid protein that belongs to the Nogo receptor family. Localized to the cell membrane, NgR3 contains eight LRR (leucine-rich repeats). NgR3 is predominantly expressed in brain, where it localizes to the surface of neurons, but is also found at lower levels in lung, placenta, kidney, mammary gland, skeletal muscle, spleen and salivary gland. NgR3 is thought to play a role in the regulation of axonal regeneration and plasticity in the adult central nervous system. The gene that encodes NgR3 maps to human chromosome 17, which makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes.

REFERENCES

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2. Wang, K.C., Koprivica, V., Kim, J.A., Sivasankaran, R., Guo, Y., Neve, R.L. and He, Z. 2002. Oligodendrocyte-myelin glycoprotein is a Nogo receptor ligand that inhibits neurite outgrowth. *Nature* 417: 941-944.
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5. Lauren, J., Airaksinen, M.S., Saarma, M. and Timmusk, T. 2003. Two novel mammalian Nogo receptor homologs differentially expressed in the central and peripheral nervous systems. *Mol. Cell. Neurosci.* 24: 581-594.

CHROMOSOMAL LOCATION

Genetic locus: RTN4RL1 (human) mapping to 17p13.3; Rtn4r1 (mouse) mapping to 11 B5.

SOURCE

NgR3 (B-7) is a mouse monoclonal antibody raised against amino acids 277-420 mapping near the C-terminus of NgR3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

NgR3 (B-7) is recommended for detection of NgR3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NgR3 siRNA (h): sc-94025, NgR3 siRNA (m): sc-149955, NgR3 shRNA Plasmid (h): sc-94025-SH, NgR3 shRNA Plasmid (m): sc-149955-SH, NgR3 shRNA (h) Lentiviral Particles: sc-94025-V and NgR3 shRNA (m) Lentiviral Particles: sc-149955-V.

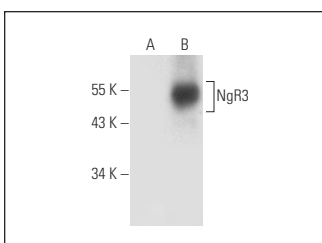
Molecular Weight of NgR3: 49 kDa.

Positive Controls: NgR3 (m): 293T Lysate: sc-125703.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NgR3 (B-7): sc-398584. Western blot analysis of NgR3 expression in non-transfected: sc-117752 (A) and mouse NgR3 transfected: sc-125703 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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