SANTA CRUZ BIOTECHNOLOGY, INC.

NgR3 (H-144): sc-135371

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 8 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

1. GrandPre, T., Nakamura, F., Vartanian, T. and Strittmatter, S.M. 2000. Identification of the Nogo inhibitor of axon regeneration as a Reticulon protein. Nature 403: 439-444.
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.

CHROMOSOMAL LOCATION

Genetic locus: RTN4RL1 (human) mapping to 17p13.3; Rtn4rl1 (mouse) mapping to 11 B5.

SOURCE

NgR3 (H-144) is a rabbit polyclonal antibody raised against amino acids 277-420 mapping near the C-terminus of NgR3 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.

APPLICATIONS

NgR3 (H-144) is recommended for detection of NgR3 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); non cross-reactive with NgR2.

NgR3 (H-144) is also recommended for detection of NgR3 in additional species, including porcine.

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.

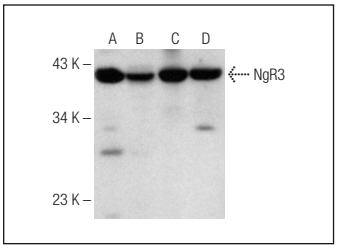
Molecular Weight of NgR3: 49 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, MCF7 whole cell lysate: sc-2206 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NgR3 (H-144): sc-135371. Western blot analysis of NgR3 expression in U-87 MG (**A**) and MCF7 (**B**) whole cell lysates and rat brain (**C**) and mouse brain (**D**) tissue extracts.

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.

MONOS Satisfaction Guaranteed

Try **NgR3 (H-11): sc-515400** or **NgR3 (B-7): sc-398584**, our highly recommended monoclonal alternatives to NgR3 (H-144).