

NRAGE (C-20): sc-14400

BACKGROUND

The neurotrophin family of growth factors (NGF) function to regulate neuronal differentiation, synaptic activity and neuronal survival, as well as axonal and dendritic growth. The melanoma-associated antigen (MAGE) family consists of a number of antigens recognized by cytotoxic T lymphocytes. Neurotrophin receptor-interacting MAGE homolog (NRAGE) binds the p75 neurotrophin receptor and associates with the plasma membrane when NGF binds p75NTR. The critical factors for NRAGE association lie within the juxtamembrane domain of p75NTR. Overexpression of NRAGE stimulates cell cycle arrest and allows NGF-dependent apoptosis within sympathetic neuron precursors cells. NRAGE is expressed in the medulla oblongata during development and motoneurons. Structural similarities suggest NRAGE and the MAGE protein Necdin (Ndn) mediate cell cycle effects through a shared mechanism.

REFERENCES

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2. McAllister, K., et al. 1999. Neurotrophins and synaptic plasticity. *Annu. Rev. Neurosci.* 22: 295-318.
3. Okami, J., et al. 2000. Genetic detection for micrometastasis in lymph node of biliary tract carcinoma. *Clin. Cancer Res.* 6: 2326-2332.
4. Granelli, P., et al. 2000. Melanoma antigen genes 1 and 2 are differentially expressed in human gastric and cardiac carcinomas. *Scand. J. Gastroenterol.* 35: 528-533.
5. Klein, C., et al. 2000. Comparative analysis of genetically modified dendritic cells and tumor cells as therapeutic cancer vaccines. *J. Exp. Med.* 191: 1699-1708.
6. Busam, K.J., et al. 2000. Immunoreactivity with the anti-MAGE antibody 57B in malignant melanoma: frequency of expression and correlation with prognostic parameters. *Mod. Pathol.* 13: 459-465.
7. Kobayashi, Y., et al. 2000. Expression of MAGE, GAGE and BAGE genes in human liver diseases: utility as molecular markers for hepatocellular carcinoma. *J. Hepatol.* 32: 612-617.
8. Salehi, A.H., et al. 2000. NRAGE, a novel MAGE protein, interacts with the p75 neurotrophin receptor and facilitates nerve growth factor-dependent apoptosis. *Neuron* 27: 279-288.

CHROMOSOMAL LOCATION

Genetic locus: MAGED1 (human) mapping to Xp11.22.

SOURCE

NRAGE (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NRAGE of human origin.

STORAGE

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

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-14400 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NRAGE (C-20) is recommended for detection of NRAGE of human and rat 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).

NRAGE (C-20) is also recommended for detection of NRAGE in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NRAGE siRNA (h): sc-37320, NRAGE shRNA Plasmid (h): sc-37320-SH and NRAGE shRNA (h) Lentiviral Particles: sc-37320-V.

Molecular Weight of NRAGE: 97 kDa.

Positive Controls: SW-13 cell lysate: sc-24778, L6 whole cell lysate: sc-364196 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) 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.

SELECT PRODUCT CITATIONS

1. Matluk, N., et al. 2010. A role for NRAGE in NFκB activation through the non-canonical BMP pathway. *BMC Biol.* 8: 7.

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.


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Try **NRAGE (31): sc-136552** or **NRAGE (F-9): sc-393291**, our highly recommended monoclonal alternatives to NRAGE (C-20).