SANTA CRUZ BIOTECHNOLOGY, INC.

NRAGE (H-7): sc-398493

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 motor-neurons. Structural similarities suggest NRAGE, and the MAGE protein necdin, (Ndn), mediate cell cycle effects through a shared mechanism.

REFERENCES

1. Farinas, I. 1999. Nerotrophin actions during the development of the peripheral nervous system. Microsc. Res. Tech. 45: 233-242.
2. McAllister, A.K., et al. 1999. Nerotrophins 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 cardial 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.

CHROMOSOMAL LOCATION

Genetic locus: MAGED1 (human) mapping to Xp11.22; Maged1 (mouse) mapping to X C3.

SOURCE

NRAGE (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 27-54 near the N-terminus of NRAGE of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398493 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NRAGE (H-7) is recommended for detection of NRAGE 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).

NRAGE (H-7) is also recommended for detection of NRAGE in additional species, including canine and porcine.

Suitable for use as control antibody for NRAGE siRNA (h): sc-37320, NRAGE siRNA (m): sc-45975, NRAGE shRNA Plasmid (h): sc-37320-SH, NRAGE shRNA Plasmid (m): sc-45975-SH, NRAGE shRNA (h) Lentiviral Particles: sc-37320-V and NRAGE shRNA (m) Lentiviral Particles: sc-45975-V.

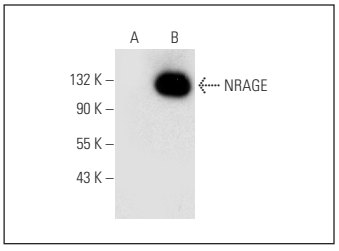
Molecular Weight of NRAGE: 97 kDa.

Positive Controls: NRAGE (m): 293T Lysate: sc-122121 or NRAGE (h): 293T Lysate: sc-114826.

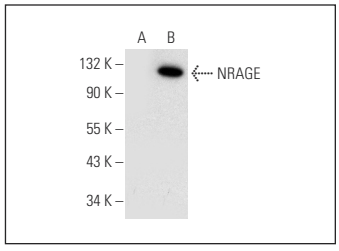
RECOMMENDED SUPPORT REAGENTS

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



NRAGE (H-7): sc-398493. Western blot analysis of NRAGE expression in non-transfected: sc-117752 (**A**) and mouse NRAGE transfected: sc-122121 (**B**) 293T whole cell lysates.



NRAGE (H-7): sc-398493. Western blot analysis of NRAGE expression in non-transfected: sc-117752 (**A**) and human NRAGE transfected: sc-114826 (**B**) 293T 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.