

# NRAGE (31): sc-136552

## 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. Neurotrophin actions during the development of the peripheral nervous system. *Microsc. Res. Tech.* 45: 233-242.
2. McAllister, A.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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NRAGE (31) is a mouse monoclonal antibody raised against amino acids 21-121 of NRAGE of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NRAGE (31) is available conjugated to agarose (sc-136552 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136552 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

## APPLICATIONS

NRAGE (31) is recommended for detection of NRAGE 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

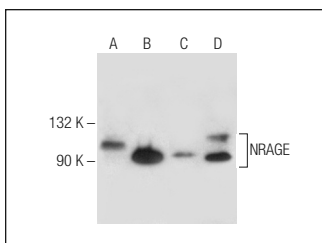
Molecular Weight of NRAGE: 97 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, L6 whole cell lysate: sc-364196 or WI-38 whole cell lysate: sc-364260.

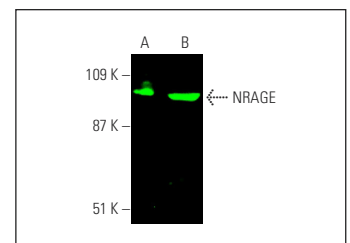
## RECOMMENDED SUPPORT REAGENTS

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 (31): sc-136552. Western blot analysis of NRAGE expression in WI-38 (A), PC-12 (B), Jurkat (C) and L6 (D) whole cell lysates.



NRAGE (31): sc-136552. Near-infrared western blot analysis of NRAGE expression in SH-SY5Y (A) and L6 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS

1. Zhou, Y., et al. 2017. Silencing of NRAGE induces autophagy via AMPK/ULK1/Atg13 signaling pathway in NSCLC cells. *Tumour Biol.* 39: 1010428317709676.

## 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.