

# NAIF1 (G-13): sc-163112



The Power to Question

## BACKGROUND

NAIF1 (nuclear apoptosis inducing factor 1) is a 327 amino acid protein that localizes to the nucleus and contains two N-terminal nuclear localization signals, one glycine-rich region and one homeodomain-like region. Expressed in a variety of tissues, NAIF1 interacts with C11orf77 and, when overexpressed, functions to halt cell growth and induce apoptosis. NAIF1 exists as multiple alternatively spliced isoforms which are encoded by a gene that maps to human chromosome 9. Chromosome 9 houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

## REFERENCES

1. Lv, B., Shi, T., Wang, X., Song, Q., Zhang, Y., Shen, Y., Ma, D. and Lou, Y. 2006. Overexpression of the novel human gene, nuclear apoptosis-inducing factor 1, induces apoptosis. *Int. J. Biochem. Cell Biol.* 38: 671-683.
2. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610673. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Gardiner, J., Barton, D., Marc, J and Overall, R. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in familial dysautonomia. *Traffic* 8: 1145-1149.
4. Temtamy, S.A., Kamel, A.K., Ismail, S., Helmy, N.A., Aglan, M.S., El Gammal, M., El Ruby, M. and Mohamed, A.M. 2007. Phenotypic and cytogenetic spectrum of 9p trisomy. *Genet. Couns.* 18: 29-48.
5. Sinzelle, L., Kapitonov, V.V., Grzela, D.P., Jursch, T., Jurka, J., Izsvák, Z. and Ivics, Z. 2008. Transposition of a reconstructed Harbinger element in human cells and functional homology with two transposon-derived cellular genes. *Proc. Natl. Acad. Sci. USA* 105: 4715-4720.

## CHROMOSOMAL LOCATION

Genetic locus: NAIF1 (human) mapping to 9q34.11; Naif1 (mouse) mapping to 2 B.

## SOURCE

NAIF1 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NAIF1 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.

Blocking peptide available for competition studies, sc-163112 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

NAIF1 (G-13) is recommended for detection of NAIF1 of mouse, rat and human 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).

NAIF1 (G-13) is also recommended for detection of NAIF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NAIF1 siRNA (h): sc-92660, NAIF1 siRNA (m): sc-149806, NAIF1 shRNA Plasmid (h): sc-92660-SH, NAIF1 shRNA Plasmid (m): sc-149806-SH, NAIF1 shRNA (h) Lentiviral Particles: sc-92660-V and NAIF1 shRNA (m) Lentiviral Particles: sc-149806-V.

Molecular Weight of NAIF1: 35 kDa.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.