SANTA CRUZ BIOTECHNOLOGY, INC.

NIP45 (A-19): sc-6334

BACKGROUND

The NFAT (nuclear factor of activated T cells) family of transcription factors regulates cytokine expression in T cells through *cis*-acting elements located in the promoters of cytokine genes. It is characteristic of members of the NFAT family to translocate to the nucleus, where they initiate transcription of cytokine genes subsequent to calcineurin activation. It is apparent that transcription factors such as NFAT and c-Maf require additional factors in order to mediate transcriptional activation of cytokine genes. NIP45 (for NFAT interacting protein) was identified as a protein that binds to the Rel homology domain (RHD) of NFAT c2. NIP45 and NFAT, in synergy with c-Maf, have been shown to transactivate the interleukin-4 promoter, resulting in gene transcription.

REFERENCES

1. Ho, S., et al. 1994. Cloning and characterization of NFATc and NFATp: the cytoplasmic components of NFAT. Adv. Exp. Med. Biol. 365: 167-173.
2. Ho, S.N., et al. 1995. NFATc3, a lymphoid-specific NFATc family member that is calcium-regulated and exhibits distinct DNA binding specificity. J. Biol. Chem. 270: 19898-19907.
3. Rao, A. 1995. NFATp, a cyclosporin-sensitive transcription factor implicated in cytokine gene induction. J. Leukoc. Biol. 57: 536-642.
4. Hoey, T., et al. 1995. Isolation of two new members of the NFAT gene family and functional characterization of the NFAT proteins. Immunity 2: 461-472.
5. Masuda, E.S., et al. 1995. NFATx, a novel member of the nuclear factor of activated T cells family that is expressed predominantly in the thymus. Mol. Cell. Biol. 15: 2697-2706.
6. Hodge, M.R., et al. 1996. NFAT-driven interleukin-4 transcription potentiated by NIP45. Science 274: 1903-1905.

CHROMOSOMAL LOCATION

Genetic locus: NFATC2IP (human) mapping to 16p11.2; Nfatc2ip (mouse) mapping to 7 F4.

SOURCE

NIP45 (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NIP45 of mouse 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-6334 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

NIP45 (A-19) is recommended for detection of NIP45 of mouse 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).

Suitable for use as control antibody for NIP45 siRNA (m): sc-40773, NIP45 shRNA Plasmid (m): sc-40773-SH and NIP45 shRNA (m) Lentiviral Particles: sc-40773-V.

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.