

NFAM1 (T-16): sc-86182

BACKGROUND

NFAM1 (NFAT activating protein with ITAM motif 1), also known as CNAIP, is a 270 amino acid single-pass type I membrane protein that contains one ITAM domain and one immunoglobulin-like domain and is subject to glycosylation on its N-terminus. Highly expressed in mast cells, lymphocytes and primary monocytes and expressed at lower levels in non-immune tissue, NFAM1 interacts with ZAP-70 and Syk and is thought to function as a receptor, activating both cytokine gene promoters and the NFAT signaling pathway. Additionally, NFAM1 may play an important role in the regulation of B cell development, thereby mediating immune system function. The gene encoding NFAM1 maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, neurofibromatosis type 2, autism and schizophrenia.

REFERENCES

1. Yang, J., et al. 2003. Calcineurin/nuclear factors of activated T cells (NFAT)-activating and immunoreceptor tyrosine-based activation motif (ITAM)-containing protein (CNAIP), a novel ITAM-containing protein that activates the calcineurin/NFAT-signaling pathway. *J. Biol. Chem.* 278: 16797-16801.
2. Ohtsuka, M., et al. 2004. NFAM1, an immunoreceptor tyrosine-based activation motif-bearing molecule that regulates B cell development and signaling. *Proc. Natl. Acad. Sci. USA* 101: 8126-8131.
3. Choi, J., et al. 2005. Endothelial cells promote human immunodeficiency virus replication in nondividing memory T cells via Nef-, Vpr-, and T cell receptor-dependent activation of NFAT. *J. Virol.* 79: 11194-11204.
4. Nilsson, L.M., et al. 2007. Novel blocker of NFAT activation inhibits IL-6 production in human myometrial arteries and reduces vascular smooth muscle cell proliferation. *Am. J. Physiol., Cell Physiol.* 292: C1167-C1178.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 608740. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: NFAM1 (human) mapping to 22q13.2.

SOURCE

NFAM1 (T-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of NFAM1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86182 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

NFAM1 (T-16) is recommended for detection of NFAM1 of 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)], 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 NFAM1 siRNA (h): sc-75910, NFAM1 shRNA Plasmid (h): sc-75910-SH and NFAM1 shRNA (h) Lentiviral Particles: sc-75910-V.

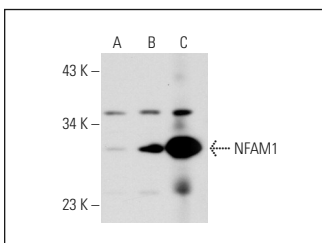
Molecular Weight of NFAM1: 30 kDa.

Positive Controls: NFAM1 (h): 293T Lysate: sc-115683 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NFAM1 (T-16): sc-86182. Western blot analysis of NFAM1 expression in non-transfected 293T: sc-117752 (A), human NFAM1 transfected 293T: sc-115683 (B) and Jurkat (C) whole cell lysates.

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.