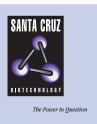
# SANTA CRUZ BIOTECHNOLOGY, INC.

# TACI (4976): sc-80335



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 the cytokine genes. The NFAT family consists of the cytoplasmic NFAT (NFATc), transcription factors NFATc1, NFATc2, NFATc3 and NFATc4, and nuclear NFAT (NFATn). Each of these transcription factors plays a role in T cell activation. CAML (calcium-signal modulating cyclophilin ligand) has been identified as an activator of NFAT and NF-IL2A when overexpressed in Jurkat cells. CAML has also been shown to activate calcineurin by causing calcium influx. TACI (transmembrane activator and CAML-interactor), a member of the TNF receptor superfamily, was identified based on its capacity to bind to CAML and has been shown to induce activation of NFAT in the presence of CAML.

# 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.
- Bram, R.J. and Crabtree, G.R. 1994. Calcium signalling in T cells stimulated by a cyclophilin B-binding protein. Nature 371: 355-358.
- 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.
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- 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.
- 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.
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- Von Bulow, G.U. and Bram, R.J. 1997. NFAT activation induced by a CAMLinteracting member of the tumor necrosis factor receptor superfamily. Science 278: 138-141.
- 9. Gross, J.A. et al. 2000. TACI and BCMA are receptors for a TNF homologue implicated in B cell autoimmune disease. Nature 404: 995-999.

### CHROMOSOMAL LOCATION

Genetic locus: TNFRSF13B (human) mapping to 17q11.1; Tnfrsf13b (mouse) mapping to 11 B2.

#### SOURCE

TACI (4976) is a mouse monoclonal antibody raised against an extracellular domain of TACI of human origin.

# PRODUCT

Each vial contains 100  $\mu g~lg G_1$  in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer.

## APPLICATIONS

TACI (4976) is recommended for detection of TACI of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with BCMA.

Suitable for use as control antibody for TACI siRNA (h): sc-40243.

Molecular Weight of TACI: 45 kDa.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker<sup>™</sup> compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

# 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.

### PROTOCOLS

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