

TACI (C-20): sc-7332

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.
2. Bram, R.J. and Crabtree, G.R. 1994. Calcium signalling in T cells stimulated by a cyclophilin B-binding protein. *Nature* 371: 355-358.
3. 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.
4. 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.
5. Rao, A. 1995. NFATp, a cyclosporin-sensitive transcription factor implicated in cytokine gene induction. *J. Leukoc. Biol.* 57: 536-542.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF13B (human) mapping to 17p11.2.

SOURCE

TACI (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TACI 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-7332 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

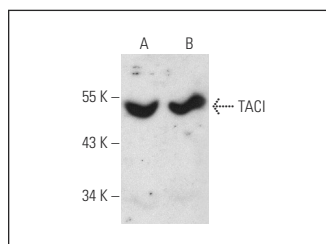
TACI (C-20) is recommended for detection of TACI of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TACI siRNA (h): sc-40243, TACI shRNA Plasmid (h): sc-40243-SH and TACI shRNA (h) Lentiviral Particles: sc-40243-V.

Molecular Weight of TACI: 45 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

DATA



TACI (C-20): sc-7332. Western blot analysis of TACI expression in Raji (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. He, B., et al. 2004. Lymphoma B cells evade apoptosis through the TNF family members BAFF/BLyS and APRIL. *J. Immunol.* 172: 3268-3279.
2. Chiu, A., et al. 2007. Hodgkin lymphoma cells express TACI and BCMA receptors and generate survival and proliferation signals in response to BAFF and APRIL. *Blood* 109: 729-739.
3. Chang S.K., et al. 2008. B lymphocyte stimulator regulates adaptive immune responses by directly promoting dendritic cell maturation. *J. Immunol.* 180: 7394-7403.
4. He, B., et al. 2010. The transmembrane activator TACI triggers immunoglobulin class switching by activating B cells through the adaptor MyD88. *Nat. Immunol.* 11: 836-845.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **TACI (C-9): sc-365253** or **TACI (1A1): sc-32775**, our highly recommended monoclonal alternatives to TACI (C-20).