SANTA CRUZ BIOTECHNOLOGY, INC.

CAML (N-18): sc-7335

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 NF-ATc and NF-ATp: the cytoplasmic components of NF-AT. 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 NF-AT gene family and functional characterization of the NF-AT 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: CAMLG (human) mapping to 5q31.1; Caml (mouse) mapping to 13 B1.

SOURCE

CAML (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CAML 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-7335 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

CAML (N-18) is recommended for detection of CAML of mouse, rat and 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).

CAML (N-18) is also recommended for detection of CAML in additional species, including equine, canine, bovine, porcine and avian.

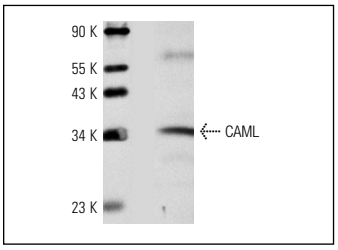
Suitable for use as control antibody for CAML siRNA (h): sc-43659, CAML siRNA (m): sc-44438, CAML shRNA Plasmid (h): sc-43659-SH, CAML shRNA Plasmid (m): sc-44438-SH, CAML shRNA (h) Lentiviral Particles: sc-43659-V and CAML shRNA (m) Lentiviral Particles: sc-44438-V.

Molecular Weight (predicted) of CAML: 33 kDa.

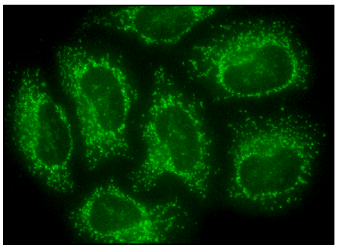
Molecular Weight (observed) of CAML: 37-42 kDa.

Positive Controls: Mouse testis extract: sc-2405.

DATA



CAML (N-18): sc-7335. Western blot analysis of CAML expression in mouse testis extract.



CAML (N-18): sc-7335. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Lee, S.J., et al. 2001. Cloning of rat calcium-modulating cyclophilin ligand. DNA Seq. 12: 209-213.
2. 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 **CAML (B-12): sc-166557**, our highly recommended monoclonal alternative to CAML (N-18).