

APRIL (Sacha-1): sc-57035

BACKGROUND

A proliferation-inducing ligand (APRIL), also designated TNFSF13, is a Type II membrane protein that shares characteristics with other members of the tumor necrosis factor (TNF) cytokine family. APRIL is expressed in high levels in transformed cell lines and in human colon, thyroid, and lymphoid tumor tissues. APRIL is critically involved in the regulation of infections, inflammation, autoimmune diseases and tissue homeostasis. APRIL is implicated in the regulation of tumor cell growth. The C-terminal extracellular domain has a jelly roll topography and is important in ligand trimerization. The binding of the ligand to its respective receptor induces oligomerization, initiating downstream signaling events. Intrinsic to oligomerization is the formation of the receptor binding site at the junction between neighboring subunits, creating a multivalent ligand.

REFERENCES

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. *Cell* 76: 959-962.
2. Banner, D.W., et al. 1996. The crystal structure of the complex of blood coagulation factor VIIa with soluble tissue factor. *Nature* 380: 41-46.
3. Hahne, M., et al. 1998. APRIL, a new ligand of the TNF family, stimulates tumor cell growth. *J. Exp. Med.* 188: 1185-1190.
4. Hu, S., et al. 1999. Characterization of TNFRSF19, a novel member of the TNF receptor superfamily. *Genomics*. 62: 103-107.
5. Khare, S.D., et al. 2000. Severe B cell hyperplasia and autoimmune disease in TALL-1 transgenic mice. *Proc. Natl. Acad. Sci. USA* 97: 3370-3375.
6. Medema, J.P., et al. 2003. The uncertain glory of APRIL. *Cell Death Differ.* 10: 1121-1125.
7. Wallweber, H.J., et al. 2004. The crystal structure of a proliferation-inducing ligand, APRIL. *J. Mol. Biol.* 343: 283-290.
8. Moreaux, J., et al. 2004. BAFF and APRIL protect myeloma cells from apoptosis induced by interleukin 6 deprivation and dexamethasone. *Blood* 103: 3148-3157.
9. Patel, D.R., et al. 2004. Engineering an APRIL-specific B cell maturation antigen. *J. Biol. Chem.* 279: 16727-16735.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF13/TNFSF12-TNFSF13 (human) mapping to 17p13.1; BC096441 (mouse) mapping to 11 B3.

SOURCE

APRIL (Sacha-1) is a rat monoclonal antibody raised against amino acids 105-250 of APRIL of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

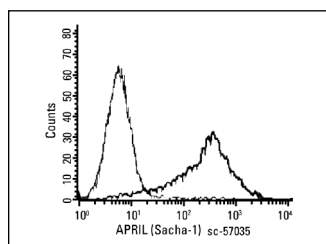
APPLICATIONS

APRIL (Sacha-1) is recommended for detection of APRIL of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for APRIL siRNA (h): sc-39822, APRIL siRNA (m): sc-39823, APRIL shRNA Plasmid (h): sc-39822-SH, APRIL shRNA Plasmid (m): sc-39823-SH, APRIL shRNA (h) Lentiviral Particles: sc-39822-V and APRIL shRNA (m) Lentiviral Particles: sc-39823-V.

Molecular Weight of APRIL: 27 kDa.

DATA



APRIL (Sacha-1): sc-57035. Intracellular FCM analysis of fixed and permeabilized non-transfected (thin line) and APRIL transfected (thick line) 293T cells.

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 for detailed protocols and support products.