

TALL-1 (L-16): sc-5742

BACKGROUND

TNF cytokine family member TALL-1 (also designated BAFF, THANK and BLYS), is a type II membrane protein that shares characteristics with other members of the tumor necrosis factor (TNF) cytokine family. TALL-1 is expressed abundantly in peripheral blood leukocytes, monocytes and macrophages. TALL-1 is critically involved in the regulation of infections, inflammation, autoimmune diseases and tissue homeostasis. TALL-1 is a potent B cell stimulatory factor which is functionally involved in B cell proliferation and may be a primary mediator in B cell-associated autoimmune diseases. The C-terminal extracellular domain has β 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. Hahne, M., et al. 1998. APRIL, a new ligand of the tumor necrosis factor family, stimulates tumor cell growth. *J. Exp. Med.* 188: 1185-1190.
3. Schneider, P., et al. 1999. BAFF, a novel ligand of the tumor necrosis factor family, stimulates B cell growth. *J. Exp. Med.* 189: 1747-1756.
4. Moore, P.A., et al. 1999. BLYS: Member of the tumor necrosis factor family and B lymphocyte stimulator. *Science* 285: 260-263.
5. Mukhopadhyay, A., et al. 1999. Identification and characterization of a novel cytokine, THANK, a TNF homologue that activates apoptosis, nuclear factor- κ B, and c-Jun NH₂-terminal kinase. *J. Biol. Chem.* 274: 15978-15981.
6. Shu, H.B., et al. 1999. TALL-1 is a novel member of the TNF family that is down-regulated by mitogens. *J. Leukoc. Biol.* 65: 680-683.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF13B (human) mapping to 13q33.3.

SOURCE

TALL-1 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TALL-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5742 P, (100 μ g 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

TALL-1 (L-16) is recommended for detection of TALL-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TALL-1 (L-16) is also recommended for detection of TALL-1 in additional species, including equine and porcine.

Suitable for use as control antibody for TALL-1 siRNA (h): sc-39830, TALL-1 shRNA Plasmid (h): sc-39830-SH and TALL-1 shRNA (h) Lentiviral Particles: sc-39830-V.

Molecular Weight (predicted) of TALL-1: 31 kDa.

Molecular Weight (observed) of unglycosylated TALL-1: 35 kDa.

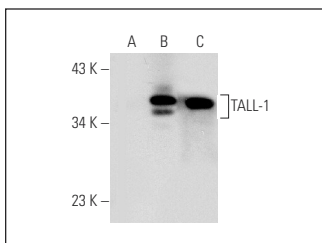
Molecular Weight (observed) of glycosylated TALL-1: 90-132 kDa.

Positive Controls: TALL-1 (h): 293T Lysate: sc-176656 or SK-N-SH cell lysate: sc-2410.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TALL-1 (L-16): sc-5742. Western blot analysis of TALL-1 expression in non-transfected 293T: sc-117752 (A), human TALL-1 transfected 293T: sc-176656 (B) and SK-N-SH (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.