

NTAL (W-18): sc-66799

BACKGROUND

Non-T cell activation linker (NTAL), a transmembrane adaptor protein, is also designated membrane-associated adapter molecule, Williams-Beuren syndrome chromosome region 15 protein or LAB (linker of activated B cells). NTAL is present in membrane microdomains (rafts) of B cells, NK cells and myeloid cells, and in monocytes and mast cells, but not in resting T lymphocytes. NTAL becomes rapidly tyrosine-phosphorylated upon cross-linking of the B cell receptor (BCR) or of high-affinity Fc γ and Fc ϵ receptors of myeloid cells and then associates with the cytoplasmic signaling molecules. NTAL is highly expressed in spleen, lymph node germinal centers and peripheral blood lymphocytes. Defects in the gene encoding for NTAL may cause the musculo-skeletal and cardiovascular abnormalities that characterize the rare developmental disorder Williams-Beuren syndrome (WBS).

REFERENCES

- Martindale, D.W., et al. 2000. Comparative genomic sequence analysis of the Williams syndrome region (LIMK1-RFC2) of human chromosome 7q11.23. *Mamm. Genome* 11: 890-898.
- Janssen, E., et al. 2003. LAB: a new membrane-associated adaptor molecule in B cell activation. *Nat. Immunol.* 4: 117-123.
- Tkaczyk, C., et al. 2004. NTAL phosphorylation is a pivotal link between the signaling cascades leading to human mast cell degranulation following Kit activation and Fc ϵ RI aggregation. *Blood* 104: 207-214.
- Koonpaew, S., et al. 2004. The importance of three membrane-distal tyrosines in the adaptor protein NTAL/LAB. *J. Biol. Chem.* 279: 11229-11235.
- Tedoldi, S., et al. 2005. Transmembrane adaptor molecules: a new category of lymphoid-cell markers. *Blood* 107: 213-221.

CHROMOSOMAL LOCATION

Genetic locus: LAT2 (human) mapping to 7q11.23.

SOURCE

NTAL (W-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of NTAL 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-66799 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.

PROTOCOLS

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

APPLICATIONS

NTAL (W-18) is recommended for detection of NTAL 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).

Suitable for use as control antibody for NTAL siRNA (h): sc-62703, NTAL shRNA Plasmid (h): sc-62703-SH and NTAL shRNA (h) Lentiviral Particles: sc-62703-V.

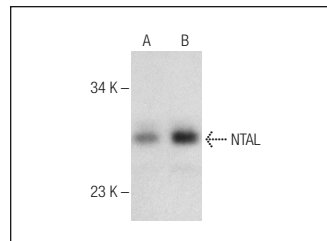
Molecular Weight of NTAL: 30 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, AML-193 whole cell lysate: sc-364182 or HL-60 whole cell lysate: sc-2209.

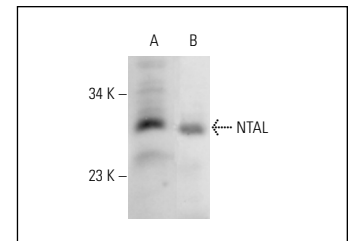
RECOMMENDED SECONDARY REAGENTS

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



NTAL (W-18): sc-66799. Western blot analysis of NTAL expression in AML-193 (A) and THP-1 (B) whole cell lysates.



NTAL (W-18): sc-66799. Western blot analysis of NTAL expression in THP-1 (A) and HL-60 (B) whole cell lysates.

RESEARCH USE

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