SANTA CRUZ BIOTECHNOLOGY, INC.

NTAL (M-66): sc-67317

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 cardio-vascular abnormalities that characterize the rare developmental disorder Williams-Beuren syndrome (WBS).

REFERENCES

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2. Janssen, E., Zhu, M., Zhang, W., Koonpaew, S. and Zhang, W. 2003. LAB: a new membrane-associated adaptor molecule in B cell activation. Nat. Immunol. 4: 117-123.
3. Tkaczyk, C., Horejsi, V., Iwaki, S., Draber, P., Samelson, L.E., Satterthwaite, A.B., Nahm, D.H., Metcalfe, D.D. and Gilfillan, A.M. 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.
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5. Tedoldi, S., Paterson, J.C., Hansmann, M.L., Natkunam, Y., Rüdiger, T., Angelisova, P., Du, M.Q., Roberton, H., Roncador, G., Sanchez, L., Pozzobon, M., Masir, N., Barry, R., Pileri, S., Mason, D.Y., Marafioti, T. and Horejsí, V. 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; Lat2 (mouse) mapping to 5 G2.

SOURCE

NTAL (M-66) is a rabbit polyclonal antibody raised against amino acids 69-134 mapping within an internal region of NTAL of mouse origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

NTAL (M-66) is recommended for detection of non-T cell activation linker of mouse and rat 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).

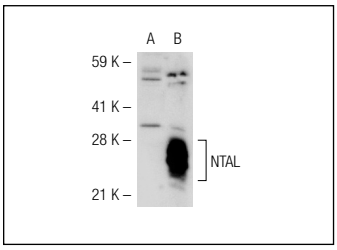
Suitable for use as control antibody for NTAL siRNA (m): sc-62704, NTAL shRNA Plasmid (m): sc-62704-SH and NTAL shRNA (m) Lentiviral Particles: sc-62704-V.

Molecular Weight of NTAL: 30 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NTAL (M-66): sc-67317. Western blot analysis of NTAL expression in non-transfected: sc-117752 (**A**) and mouse NTAL transfected: sc-122140 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS Satisfaction Guaranteed

Try **NTAL (D-10): sc-271000** or **NTAL (NAP-07): sc-51686**, our highly recommended monoclonal alternatives to NTAL (M-66).