



11-374-C025

Monoclonal Antibody to NTAL / LAB Purified Antibody (0.025 mg)

Clone:	NAP-07
Isotype:	Mouse IgG1
Specificity:	The antibody NAP-07 reacts with Non-T cell activation linker (NTAL), also known as LAB (linker of activated B cells), a 25 - 30 kDa transmembrane adaptor protein present in membrane microdomains (rafts) of B lymphocytes, NK cells and myeloid cells.
Immunogen:	Recombinant cytoplasmic domain (aa 91-243) of human NTAL.
Species Reactivity:	Human, Mouse, Other not tested
Application:	Flow Cytometry Positive tissue: RAJI human lymphoma cell line RAMOS human lymphoma cell line Immunoprecipitation Western Blotting Recommended dilution: 2 µg/ml, incubation 60 min Positive control: RAMOS human lymphoma cell line Negative control: HeLa human cervix carcinoma cell line Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with non-reducing SDS-PAGE sample buffer. Application note: Non-Reducing conditions. 12% separating SDS-PAGE gel. Immunocytochemistry
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from hybridoma culture supernatant by protein-A affinity chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.
Expiration:	See vial label
Lot Number:	See vial label
Background:	NTAL (Non-T cell activation linker), also known as LAB (Linker for activation of B cells), is a 30 kDa double-palmitoylated transmembrane adaptor protein expressed by B cells, NK cells, mast cells and macrophages. It is a negative regulator of early stages of BCR-dependent B cell signaling and serves as a negative regulator also in mast cells. However, in mast cells, NTAL also contributes to some activation processes, partially overlapping with LAT function.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

*Yamasaki S, Ishikawa E, Sakuma M, Kanagawa O, Cheng AM, Malissen B, Saito T.: LAT and NTAL mediate immunoglobulin E-induced sustained extracellular signal-regulated kinase activation critical for mast cell survival. *Mol Cell Biol.* 2007 Jun;27(12):4406-15.

*Brdicka T, Imrich M, Angelisova P, Brdickova N, Horvath O, Spicka J, Hilgert I, Luskova P, Draber P, Novak P, Engels N, Wienands J, Simeoni L, Osterreicher J, Aguado E, Malissen M, Schraven B, Horejsi V.: Non-T cell activation linker (NTAL): a transmembrane adaptor protein involved in immunoreceptor signaling. *J Exp Med.* 2002 Dec 16; 196(12):1617-26.

*Tkaczyk C, Horejsi V, Iwaki S, Draber P, Samelson LE, Satterthwaite AB, Nahm DH, Metcalfe DD, Gilfillan AM.: NTAL phosphorylation is a pivotal link between the signaling cascades leading to human mast cell degranulation following Kit activation and Fc epsilon RI aggregation. *Blood.* 2004 Jul 1;104(1):207-14.

*Volna P, Lebduska P, Draberova L, Simova S, Heneberg P, Boubelik M, Bugajev V, Malissen B, Wilson BS, Horejsi V, Malissen M, Draber P.: Negative regulation of mast cell signaling and function by the adaptor LAB/NTAL. *J Exp Med.* 2004 Oct 18;200(8):1001-13.

*Lebduska P, Korb J, Tůmová M, Heneberg P, Dráber P.: Topography of signaling molecules as detected by electron microscopy on plasma membrane sheets isolated from non-adherent mast cells. *J Immunol Methods.* 2007 Dec 1;328(1-2):139-51.

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