

A4-374-C100

Monoclonal Antibody to NTAL / LAB Alexa Fluor® 488 conjugated (0.1 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
Preparation:	The purified antibody is conjugated with Alexa Fluor® 488 under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis. Suggested working dilution is 5-15 µg/ml. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.
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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