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Datasheet for ABIN94439

## anti-LAT2 antibody (Cytoplasmic Domain)

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### Overview

Quantity:	0.1 mg
Target:	LAT2
Binding Specificity:	AA 91-243, Cytoplasmic Domain
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This LAT2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunocytochemistry (ICC), Flow Cytometry (FACS)

### Product Details

Immunogen:	Recombinant cytoplasmic domain (aa 91-243) of human NTAL.
Clone:	NAP-07
Isotype:	IgG1
Specificity:	The antibody NAP-07 reacts with an intracellular epitope of Non-T cell activation linker (NTAL), also known as LAB (linker of activated B cells), a 25 - 30 kDa transmembrane adaptor protein associating with lipid raft components in the plasma membrane of B lymphocytes, NK cells and myeloid cells.
Cross-Reactivity (Details):	Mouse, Human, Other not tested
Purification:	Purified by protein-A affinity chromatography.

## Product Details

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Purity: > 95 % (by SDS-PAGE)

## Target Details

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Target: LAT2

Alternative Name: NTAL / LAB ([LAT2 Products](#))

Background: Linker for activation of T cells family member 2, 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., LAB, LAT2

Gene ID: 56743

UniProt: [Q9JHLO](#)

Pathways: [Fc-epsilon Receptor Signaling Pathway](#), [BCR Signaling](#)

## Application Details

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Application Notes: Western blotting: Recommended dilution: 1-2 µg/mL.  
Flow cytometry: Intracellular staining, recommended dilution: 1-4 µg/mL, positive tissue: RAJI human lymphoma cell line, RAMOS human lymphoma cell line.

Restrictions: For Research Use only

## Handling

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Concentration: 1 mg/mL

Buffer: Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: **Do not freeze.**

Storage: 4 °C

Storage Comment: Store at 2-8°C. Do not freeze.

### Product cited in:

Duque-Afonso, Yalcin, Berg, Abdelkarim, Heidenreich, Lübbert: "The HDAC class I-specific inhibitor entinostat (MS-275) effectively relieves epigenetic silencing of the LAT2 gene mediated by AML1/ETO." in: **Oncogene**, Vol. 30, Issue 27, pp. 3062-72, (2011) ([PubMed](#)).

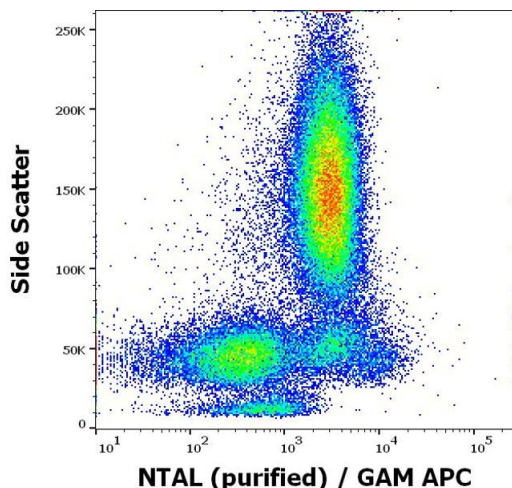
Lebduska, Korb, Třmová, Heneberg, Dráber: "Topography of signaling molecules as detected by electron microscopy on plasma membrane sheets isolated from non-adherent mast cells." in: **Journal of immunological methods**, Vol. 328, Issue 1-2, pp. 139-51, (2007) ([PubMed](#)).

Tkaczyk, Horejsi, Iwaki, Draber, Samelson, Satterthwaite, Nahm, Metcalfe, Gilfillan: "NTAL phosphorylation is a pivotal link between the signaling cascades leading to human mast cell degranulation following Kit activation and Fc epsilon RI aggregation." in: **Blood**, Vol. 104, Issue 1, pp. 207-14, (2004) ([PubMed](#)).

Volná, Lebduska, Dráberová, Símová, Heneberg, Boubelík, Bugajev, Malissen, Wilson, Horejsí, Malissen, Dráber: "Negative regulation of mast cell signaling and function by the adaptor LAB/NTAL." in: **The Journal of experimental medicine**, Vol. 200, Issue 8, pp. 1001-13, (2004) ([PubMed](#)).

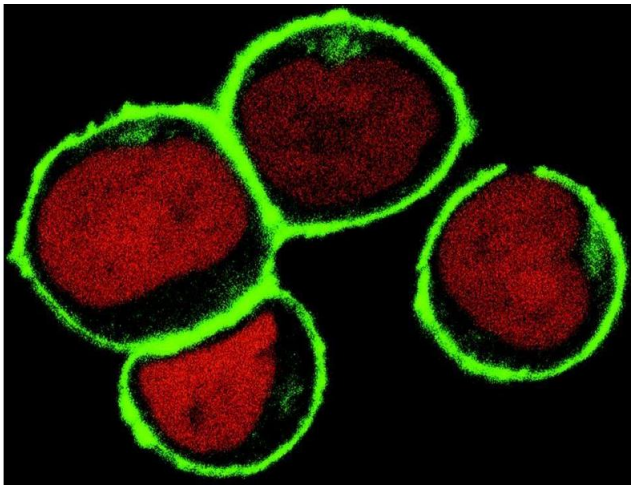
Brdicka, Imrich, Angelisová, Brdicková, Horváth, Spicka, Hilgert, Lusková, Dráber, Novák, Engels, Wienands, Simeoni, Osterreicher, Aguado, Malissen, Schraven, Horejsí: "Non-T cell activation linker (NTAL): a transmembrane adaptor protein involved in immunoreceptor signaling." in: **The Journal of experimental medicine**, Vol. 196, Issue 12, pp. 1617-26, (2002) ([PubMed](#)).

## Images



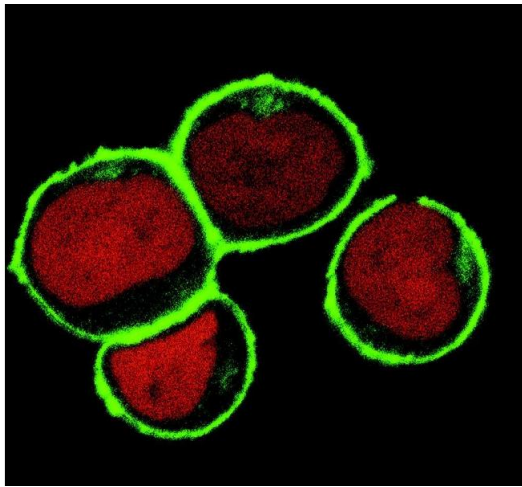
### Flow Cytometry

**Image 1.** Flow cytometry intracellular staining pattern of human peripheral whole blood using anti-NTAL (NAP-07) purified antibody (concentration in sample 9 µg/mL, GAM APC).



### Confocal Microscopy

**Image 2.** Confocal microscopy Subcellular localization of NTAL by confocal microscopy in THP-1 human acute monocytic leukemia cell line. THP-1 cells were permeabilized and immunostained using anti-NTAL (NAP-07 ; green). Nuclei are vizualized by propidium iodide (red).



### Immunocytochemistry

**Image 3.** Immunocytochemistry analysis of NTAL by confocal microscopy in THP-1 human acute monocytic leukemia cell line. The cells were permeabilized and immunostained using anti-NTAL (NAP-07, green). Nuclei are vizualized by propidium iodide (red).

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN94439.