

DESCRIPTION

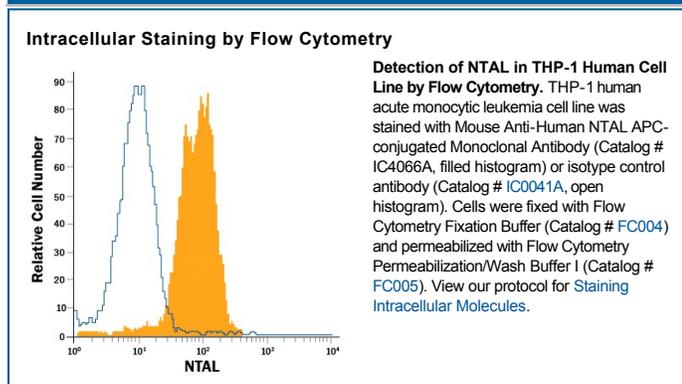
Species Reactivity	Human
Specificity	Detects human NTAL in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 440005
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human NTAL Met1-Ala243 Accession # Q9GZY6
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Non-T cell activation linker (NTAL), also known as LAT2 and Linker for Activation of B cells (LAB), is a 26-28 kDa, 243 amino acid (aa) type III transmembrane (TM) adaptor protein involved in immunoreceptor signaling. NTAL belongs to the TRAP family of adaptors and is expressed in lipid raft microdomains of B cells, mast cells, neutrophils, monocytes, dendritic cells, activated T cells and NK cells. Rapid tyrosine phosphorylation of NTAL occurs upon BCR aggregation in B cells, FcεRI aggregation and Kit activation in mast cells, FcγRI aggregation in monocytes, and Dectin-2 ligation on dendritic cells. Phosphorylated NTAL recruits signaling molecules such as Grb2, Gab1, and c-Cbl into receptor-signaling complexes. As a consequence, dendritic cells secrete IL-12, NK cells secrete IFN-γ, B cells demonstrate an ability to present antigen, and mast cells show enhanced survival. Defects in the NTAL gene may cause Williams-Beuren syndrome, a rare genetic disorder characterized by mild mental retardation, and abnormalities in the cardiovascular and musculo-skeletal systems. One splice variant is known that shows a deletion of aa 112-243. Full-length human NTAL (aa 1-243) shares 49% aa sequence identity with aa 112-243 mouse NTAL.