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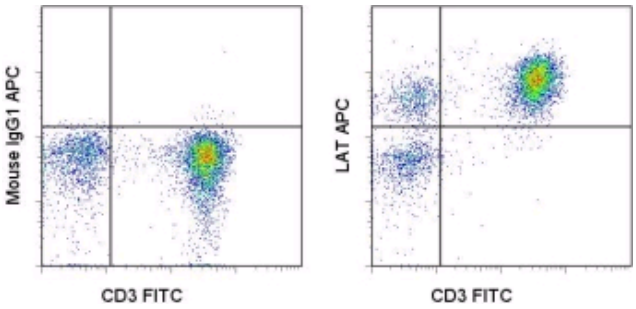
Anti-Human LAT APC

Catalog Number: 17-9967
Also Known As:Linker for activation of T-cells
RUO: For Research Use Only



Surface staining of normal human peripheral blood cells with Anti-Human CD3 FITC (cat. 11-0037) followed by intracellular staining with Mouse IgG1 κ Isotype Control APC (cat. 17-4714) (left) or Anti-Human LAT APC (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human LAT APC
REF Catalog Number: 17-9967
Clone: LAT.10-17 (10-17)
Concentration: 5 µl (0.06 µg)/test
Host/Isotype: Mouse IgG1, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

This LAT.10-17 (10-17) monoclonal antibody reacts with human Linker for Activation of T cells (LAT), which is essential for T cell receptor (TCR)-mediated signal transduction. Characterized as an integral transmembrane protein, this ~37-kDa molecule does not possess a true extracellular domain. Upon TCR/CD3 engagement, LAT localizes to lipid rafts and is tyrosine phosphorylated by ZAP-70, leading to the recruitment and activation of other downstream signaling molecules such as Grb-2, PLCγ, and PI3K. This adapter molecule has been shown to be required for T cell activation, as well as thymocyte and T regulatory cell development. In humans, LAT is expressed on peripheral blood lymphocytes, lymph nodes, and tonsil. Studies in mice have shown that LAT is expressed in thymocytes, T cells, mast cells, natural killer cells, megakaryocytes, platelets, and early B cells. This antibody does not crossreact with the mouse antigen.

Applications Reported

This LAT.10-17 (10-17) antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested

This LAT.10-17 (10-17) antibody has been pre-titrated and tested by flow cytometric analysis on normal human peripheral blood cells using Foxp3 staining buffers (cat. 00-5523). This can be used at 5 µl (0.06 µg)/per test. A test is defined as the amount (µg)/test of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

References

Burbach BJ, Medeiros RB, Mueller KL, Shimizu Y.T-cell receptor signaling to integrins. Immunol Rev. 2007 Aug;218:65-81.

Koonpaew S, Shen S, Flowers L, Zhang W.LAT-mediated signaling in CD4+CD25+ regulatory T cell development. J Exp Med. 2006 Jan 23;203 (1):119-29.

Malissen B, Aguado E, Malissen M. Role of the LAT adaptor in T-cell development and Th2 differentiation. Adv Immunol. 2005;87:1-25.

Related Products

00-5523 Foxp3 Staining Buffer Set
11-0037 Anti-Human CD3 FITC (OKT3)
17-4714 Mouse IgG1 K Isotype Control APC