

Monoclonal Antibody to Linker of Activated T cells (LAT) - DY647

Catalog No.:	SM3119D6
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	LAT (Linker for Activation of T cells) is a 36-38 kDa double-palmitoylated transmembrane adaptor protein expressed by T cells, pre-B cells, NK cells, mast cells and platelets. After immunoreceptor triggering, LAT becomes multiply tyrosine-phosphorylated by Syk-, Src-, or Tec-family kinases, providing docking sites for downstream signaling molecules. LAT is essential for TCR-dependent T cell- and FcεRI-dependent mast cell activation, as well as for maturation of early thymocytes. It is also involved in NK cell signaling and platelet activation.
Host / Isotype:	Mouse / IgG1
Clone:	LAT-01
Immunogen:	Bacterially produced recombinant polypeptide corresponding to the entire cytoplasmic domain of human LAT
Format:	State: Liquid purified Ig fraction Buffer System: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4 Label: DY647 – Conjugated with Dyomics 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography
Applications:	Flow cytometry: 1:1000. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody reacts with Linker for activation of T cells (LAT), a 36-38 kDa transmembrane adaptor protein expressed by T cells, pre-B cells, NK cells, mast cells and platelets. Species: Human. Does not work in mouse. Other species not tested.
Storage:	Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Shelf life: one year from despatch.
General Readings:	1. Horejsí V, Zhang W, Schraven B. Transmembrane adaptor proteins: organizers of immunoreceptor signalling. <i>Nat Rev Immunol.</i> 2004 Aug;4(8):603-16. PubMed PMID: 15286727. 2. Simeoni L, Smida M, Posevitz V, Schraven B, Lindquist JA. Right time, right place: the organization of membrane proximal signaling. <i>Semin Immunol.</i> 2005 Feb;17(1):35-49. PubMed PMID: 15582487. 3. Yamasaki S, Ishikawa E, Sakuma M, Kanagawa O, Cheng AM, Malissen B, et al. 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. Epub 2007 Apr 9. PubMed PMID: 17420272.

4. Tedoldi S, Paterson JC, Hansmann ML, Natkunam Y, Rüdiger T, Angelisova P, et al. Transmembrane adaptor molecules: a new category of lymphoid-cell markers. Blood. 2006 Jan 1;107(1):213-21. Epub 2005 Sep 13. PubMed PMID: 16160011.