

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LAT in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LAT His30-Glu113 Accession # O43561
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

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. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

LAT (Linker for activation of T cells; also pp36) is a 36-38 kDa type III (no signal sequence; extracellular N-terminus) transmembrane adaptor phosphoprotein. It is expressed on mast cells, NK cells, monocytes (but not macrophages), platelets and T cells. LAT is phosphorylated upon ligation of the TcR, GPVI, and FcεRI, and serves as an anchor for several SH2-domain containing signaling proteins, including PLCγ1, SLP76 and Grb2. Human LAT is 262 amino acids (aa) in length. It contains a four aa extracellular segment with a 235 aa cytoplasmic domain (aa 28-262). Palmitoylation occurs on Cys26 and 29. There are 13 Ser/Thr phosphorylation sites plus five Tyr sites. Multiple potential splice variants are reported. There is an alternative start site 36 aa upstream of the standard site that may be accompanied by a deletion of aa 114-142. There is also a deletion of aa 88-97, and three substitutions: two aa for aa 215-262, 38 aa for aa 55-262, and 50 aa for aa 35-262. Over aa 30-113, human LAT shares 73% aa identity with mouse LAT.

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