

**Product Name: LAT Rabbit Polyclonal Antibody****Catalog #: APRab13223**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ELISA
<b>Reactivity</b>	Human,Rat,Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:50-1:300,ELISA 1:2000-1:20000
<b>Molecular Weight</b>	38kDa

**Antigen Information**

<b>Gene Name</b>	LAT
<b>Alternative Names</b>	LAT; Linker for activation of T-cells family member 1; 36 kDa phospho-tyrosine adapter protein; pp36; p36-38
<b>Gene ID</b>	27040.0
<b>SwissProt ID</b>	O43561
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human LAT. AA range:86-135

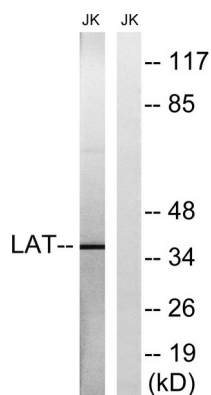
**Background**

The protein encoded by this gene is phosphorylated by ZAP-70/Syk protein tyrosine kinases following activation of the T-cell antigen receptor (TCR) signal transduction pathway. This transmembrane protein localizes to lipid rafts and acts as a docking site for SH2 domain-containing proteins. Upon phosphorylation, this protein recruits multiple adaptor proteins and downstream signaling molecules into multimolecular signaling complexes located near the site of TCR engagement. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008],function:Required for TCR (T-cell antigen receptor)- and pre-TCR-mediated signaling, both in mature T-cells and during their development. Involved in FCGR3 (low affinity immunoglobulin gamma Fc region receptor III)-mediated signaling in natural killer cells and FCER1 (high affinity immunoglobulin epsilon receptor)-mediated signaling in mast cells. Couples activation of these receptors and their associated kinases with distal intracellular events such as mobilization of intracellular calcium stores, PKC activation, MAPK activation or cytoskeletal reorganization through the recruitment of PLCG1, GRB2, GRAP2, and other signaling molecules.,miscellaneous:Engagement of killer inhibitory receptors (KIR) disrupts the interaction of PLCG1 with LAT and blocks target cell-induced activation of PLC, maybe by inducing the dephosphorylation of LAT.,PTM:Palmitoylation of Cys-26 and Cys-29 is required for raft targeting and efficient phosphorylation.,PTM:Phosphorylated on tyrosines by ZAP-70 upon TCR activation, or by SYK upon other immunoreceptor activation; which leads to the recruitment of multiple signaling molecules. Is one of the most prominently tyrosine-phosphorylated proteins detected following TCR engagement.,subcellular location:Present in lipid rafts.,subunit:When phosphorylated, interacts directly with the PIK3R1 subunit of phosphoinositide 3-kinase and the SH2 domains of GRB2, GRAP, GRAP2, PLCG1 and PLCG2. Interacts indirectly with CBL, SOS, VAV, and LCP2. Interacts with SHB, SKAP2 and CLNK (By similarity). Interacts with FCGR1A.,tissue specificity:Expressed in thymus, T-cells, NK cells, mast cells and, at lower levels, in spleen. Present in T-cells but not B-cells (at protein level),.

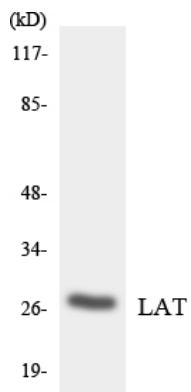
## Research Area

Natural killer cell mediated cytotoxicity;T\_Cell\_Receptor;Fc epsilon RI;Fc gamma R-mediated phagocytosis;

## Image Data



Western blot analysis of lysates from Jurkat cells, using LAT Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HUVEC cells using LAT antibody.