Product Name: LAT (phospho Tyr191) Rabbit Polyclonal Antibody
Catalog #: APRab04937
For research use only.

Summary

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

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
Molecular Weight	28kDa

Antigen Information

Gene Name	LAT
Alternative Names	LAT; Linker for activation of T-cells family member 1; 36 kDa phospho-tyrosine adapter protein; pp36; p36-38
Gene ID	27040.0
SwissProt ID	O43561
Immunogen	The antiserum was produced against synthesized peptide derived from human LAT around the phosphorylation site of Tyr191. AA range:191-240

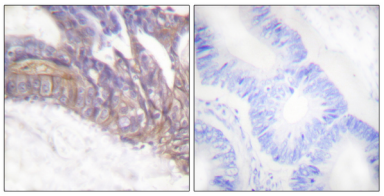
Background

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).,

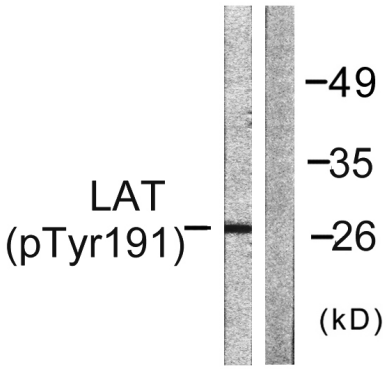
Research Area

Natural killer cell mediated cytotoxicity;T_Cell_Receptor;Fc epsilon RI;Fc gamma R-mediated phagocytosis;

Image Data



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using LAT （Phospho-Tyr191） Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from NIH/3T3 cells, using LAT (Phospho-Tyr191) Antibody. The lane on the right is blocked with the phospho peptide.