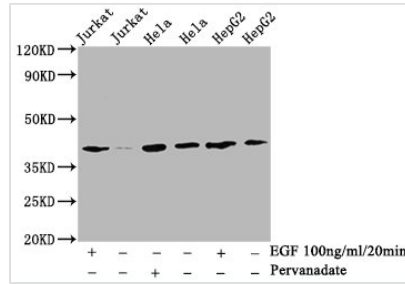




Phospho-LAT (Y191) Antibody

Product Code	CSB-RA012767A191phHU
Abbreviation	Linker for activation of T-cells family member 1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O43561
Immunogen	A synthesized peptide derived from Human Phospho-LAT (Y191)
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF, IP; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200, IP:1:200-1:1000
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	36 kDa phospho tyrosine adapter protein antibody; 36 kDa phospho-tyrosine adapter protein antibody; 36 kDa phospho-tyrosine adaptor protein antibody; LAT 1 antibody; lat antibody; LAT_HUMAN antibody; LAT1 antibody; Linker for activation of T cells antibody; Linker for activation of T cells family member 1 antibody; linker for activation of T cells; transmembrane adaptor antibody; Linker for activation of T-cells family member 1 antibody; p36 38 antibody; p36-38 antibody; pp36 antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Immunology
Gene Names	LAT
Accession NO.	2E4
Image	


Western Blot

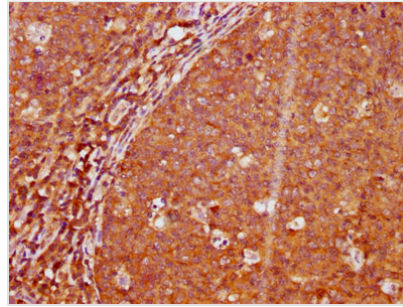
Positive WB detected in: Jurkat whole cell lysate, HeLa whole cell lysate, HepG2 whole cell lysate (treated with EGF or Pervanadate)

All lanes: Phospho-LAT antibody at 2.9 μg/ml
Secondary

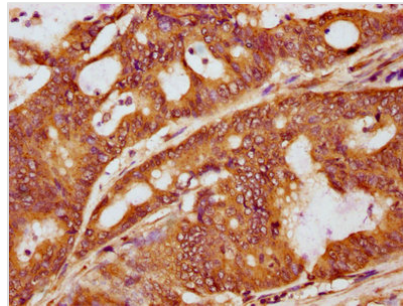
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 38 KDa

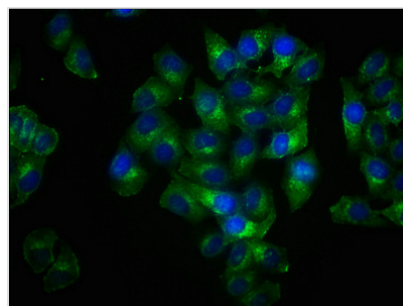
Observed band size: 38 KDa



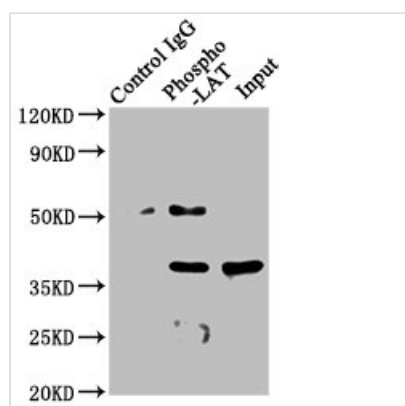
IHC image of CSB-RA012767A191pHBU diluted at 1:100 and staining in paraffin-embedded human tonsil tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



IHC image of CSB-RA012767A191pHBU diluted at 1:100 and staining in paraffin-embedded human colon cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunofluorescence staining of HeLa cells with CSB-RA012767A191pHBU at 1:100, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).


Immunoprecipitating Phospho-LAT in A549 whole cell lysate

Lane 1: Rabbit control IgG (1 μg) instead of CSB-RA012767A191pHBU in A549 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)

Lane 2: CSB-RA012767A191pHBU (3 μg) + A549 whole cell lysate (1 mg)

Lane 3: A549 whole cell lysate (20 μg)



Description

Phospho-LAT (Y191) antibody CSB-RA012767A191phHU is a recombinant monoclonal antibody expressed by the plasmids containing the coding sequence of the LAT monoclonal antibody in the host cell lines. The synthesized peptide derived from phospho-LAT at Y191 residue was used to immunize the animals to get and isolate the LAT monoclonal antibody. This recombinant antibody against the phosphorylated LAT at Y191 is a rabbit IgG and can react with human samples. It underwent affinity-chromatography purification. And it can be used in ELISA, WB, IHC, IF, and IP applications.

LAT is a palmitoylated and membrane-associated adaptor protein phosphorylated at multiple tyrosine residues (e.g. Tyr132, Tyr171, Tyr191, and Tyr226) by ZAP-70 upon TCR stimulation. Phospho-LAT is activated and serves as an essential scaffold for the assembly of TCR-coupled signaling complexes that mediate productive T cell activation.