

**#9166** Store at -20°C

# LAT Antibody

100 µl  
 (10 western blots)



**Orders** ■ 877-616-CELL (2355)  
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IHC-P, F Endogenous	H, M, (R)	36, 38 kDa	Rabbit**

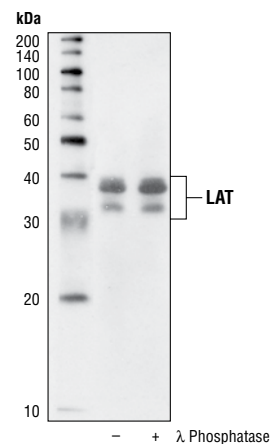
**Background:** LAT, a transmembrane adaptor protein expressed in T, NK and mast cells, is an important mediator for T cell receptor (TCR) signaling (1). Upon TCR engagement, activated Zap-70 phosphorylates LAT at multiple conserved tyrosine residues within SH2 binding motifs, exposing these motifs as the docking sites for downstream signaling targets (2,3). The phosphorylation of LAT at Tyr171 and 191 enables the binding of Grb2, Gads/SLP-76, PLCgamma1 and PI3 kinase through their SH2 domain and translocates them to the membrane. This process eventually leads to activation of the corresponding signaling pathways (1-4).

**Specificity/Sensitivity:** LAT Antibody detects endogenous levels of total LAT protein.

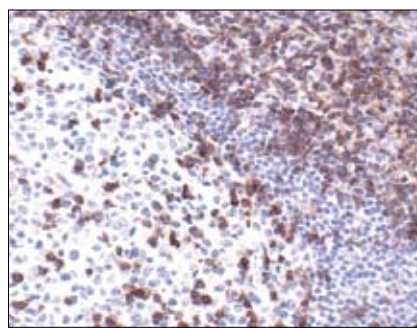
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the central region of human LAT. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

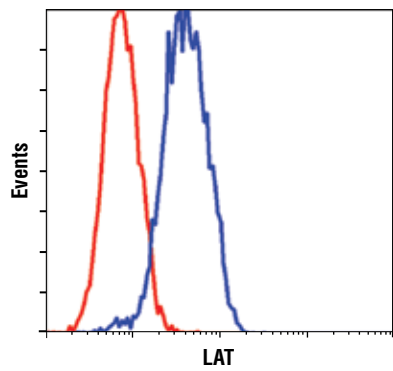
- (1) Wonerow, P. and Watson, S.P. (2001) *Oncogene* 20, 6273–6283.
- (2) Zhang, W. et al. (1998) *Cell* 92, 83–92.
- (3) Paz, P.E. et al. (2001) *Biochem. J.* 356, 461–471.
- (4) Zhang, W. et al. (2000) *J. Biol. Chem.* 275, 23355–23361



Western blot analysis of extracts from Jurkat cells untreated or treated with λ phosphatase using LAT Antibody.



Immunohistochemical analysis of paraffin-embedded human tonsil, showing membrane localization using LAT Antibody.



Flow cytometric analysis of Jurkat cells using LAT Antibody (blue) compared to a nonspecific negative control antibody (red).

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Entrez-Gene ID #** 27040  
**Swiss-Prot Acc. #** O43561

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**\*Species cross-reactivity is determined by western blot.**

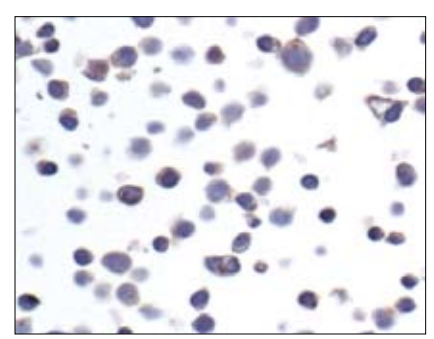
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western Blotting	1:1000
Immunoprecipitation	1:50
Immunohistochemistry (Paraffin)	1:50
Flow Cytometry	1:200

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



Immunohistochemical analysis of paraffin-embedded Jurkat cells using LAT Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.