

#3581 Store at -20°C

## Phospho-LAT (Tyr171) Antibody



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	36, 38	Rabbit	#O43561	27040

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Phospho-LAT (Tyr171) Antibody detects endogenous levels of LAT only when phosphorylated at tyrosine 171. Tyr171 of LAT, short isoform corresponds to Tyr200 of LAT, long isoform.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Tyr171 of human LAT. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	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 Tyr220 enables the binding of Grb2, Gads/SLP-76, PLCy1, 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).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Wonerow, P. and Watson, S.P. (2001) <i>Oncogene</i> 20, 6273-83.</li> <li>2. Zhang, W. et al. (1998) <i>Cell</i> 92, 83-92.</li> <li>3. Paz, P. E. et al. (2001) <i>Biochem. J.</i> 356, 461-71.</li> <li>4. Zhang, W. et al. (2000) <i>J. Biol. Chem.</i> 275, 23355-61.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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