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#3581

Phospho-LAT (Tyr171) Antibody

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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 36, 38	Source/Isotype: Rabbit	UniProt ID: #O43561	Entrez-Gene Id: 27040
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Product Usage Information	Application Western Blotting	Dilution 1:1000
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.	
Specificity/Sensitivity	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.	
Source / Purification	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.	
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 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).	
Background References	<ol style="list-style-type: none"> 1. Wonerow, P. and Watson, S.P. (2001) <i>Oncogene</i> 20, 6273-83. 2. Zhang, W. et al. (1998) <i>Cell</i> 92, 83-92. 3. Paz, P. E. et al. (2001) <i>Biochem. J.</i> 356, 461-71. 4. Zhang, W. et al. (2000) <i>J. Biol. Chem.</i> 275, 23355-61. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	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.
Applications Key	W: Western Blotting
Cross-Reactivity Key	H: Human
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