

#2704 Store at -20°C

## Phospho-Zap-70 (Tyr493)/Syk (Tyr526) Antibody



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<b>Applications:</b> WB, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 70	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #P43403	<b>Entrez-Gene Id:</b> 7535
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<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<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-Zap-70 (Tyr493)/Syk (Tyr526) Antibody detects endogenous levels of Zap-70 only when phosphorylated at Tyr493. This antibody may cross-react with other activated tyrosine kinases.	
<b>Species predicted to react based on 100% sequence homology:</b>	Mouse, Rat	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr493 of human Zap-70. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	The Syk family protein tyrosine kinase Zap-70 is expressed in T and NK cells and plays a critical role in mediating T cell activation in response to T cell receptor (TCR) engagement (1). Following TCR engagement, Zap-70 is rapidly phosphorylated on several tyrosine residues through autophosphorylation and transphosphorylation by the Src family tyrosine kinase Lck (2-6). Tyrosine phosphorylation correlates with increased Zap-70 kinase activity and downstream signaling events. Expression of Zap-70 is correlated with disease progression and survival in patients with chronic lymphocytic leukemia (7,8). Phosphorylation of Tyr493 within the activation loop results in enzymatic activation of Zap-70 (9).	
<b>Background References</b>	1. Chu, D.H. et al. (1998) <i>Immunol Rev</i> 165, 167-80. 2. Iwashima, M. et al. (1994) <i>Science</i> 263, 1136-9. 3. Neumeister, E.N. et al. (1995) <i>Mol Cell Biol</i> 15, 3171-8. 4. Chan, A.C. et al. (1995) <i>EMBO J</i> 14, 2499-508. 5. Williams, B.L. et al. (1999) <i>EMBO J</i> 18, 1832-44. 6. Di Bartolo, V. et al. (1999) <i>J Biol Chem</i> 274, 6285-94. 7. Wiestner, A. et al. (2003) <i>Blood</i> 101, 4944-51. 8. Crespo, M. et al. (2003) <i>N Engl J Med</i> 348, 1764-75. 9. Watts, J.D. et al. (1994) <i>J Biol Chem</i> 269, 29520-9.	

<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>IP:</b> Immunoprecipitation
<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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