

**Product Data Sheet: Purified anti-phospho-Zap70/Syk  
(Tyr319/Tyr352) (A3) rabbit mAb**

<b>Catalog Number:</b>	2076
<b>Clone:</b>	Zap70Y319-A3
<b>Isotype:</b>	Rabbit IgG1κ
<b>Immunogen:</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr319/Tyr352 of human phospho Zap70/Syk.
<b>Reactivity:</b>	Mouse, Human
<b>Cross Reactivity:</b>	Predicted to work with mouse, rat and other homologues.
<b>Preparation:</b>	Protein A+G
<b>Formulation:</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Applications:</b>	Flow Cytometry
<b>Recommended Usage:</b>	1.0 - 0.01 µg/ml. Optimum concentration should be determined by the user.
<b>Product Configuration:</b>	200 ul (0.5mg/ml)
<b>Detection:</b>	Anti-Rabbit IgG

**Description**

ZAP70 (Tyrosine-protein kinase ZAP-70, phospho Zap70) is a protein tyrosine kinase (PTK) that associates with the z subunit of the T cell antigen receptor (TCR) and undergoes tyrosine phosphorylation following TCR stimulation. Following TCR engagement, Zap-70 is rapidly phosphorylated on several tyrosine residues through autophosphorylation and transphosphorylation by the Src family tyrosine kinase Lck. ZAP70 contains two SH2-like domains with the PTK domain located at the C-terminus. It appears that both phospho Zap70 and Syk are recruited to the phosphorylated CD3 and z subunits after TCR stimulation. Phosphorylation of Tyr319 is required for the assembly of a phospho Zap70-containing signaling complex that leads to the activation of the PLC-gamma1-dependent and Ras-dependent signaling cascades in antigen-stimulated T cells. The orthologous Tyr352 residue in Syk is also involved in the association with PLC-gamma1.

**Alternative name(s):**

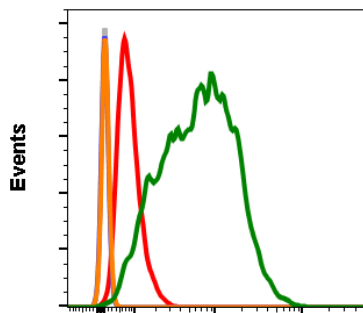
70 kDa zeta-chain associated protein  
Syk-related tyrosine kinase

**References**

1. Brdicka T et al., (2005) Mol Cell Biol 25:4924–4933.
2. Chan AC et al., (1992) Cell 71:649–662.
3. Cheng AM et al., (1997) Proc Natl Acad Sci 94:9797–9801.

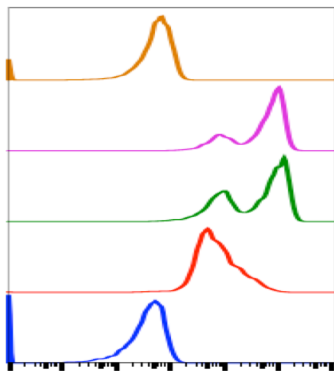
4. Deindl S et al., (2007) Cell 129:735–746.
5. Elder ME et al., (1994) Science 264:1596–1599.
6. Negishi I et al., (1995) Nature 376:435–438.
7. Yokosuka T et al., (2005) Nat Immunol 6:1253–1262.

#### Purified anti-phospho-Zap70/Syk (Tyr319/Tyr352) (A3) rabbit mAb Images



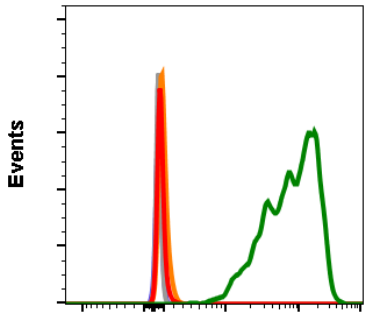
**Phospho-Zap70 (Y319)/Syk (Y352)**

Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue), or untreated (gray) or treated with H<sub>2</sub>O<sub>2</sub> (orange) using 0.01µg/mL isotype control Cat. #2141, or untreated (red) or treated (green) using Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody, ZapY319-A3 (0.01 µg/mL), Cat. #2076.



**Phospho-Zap70(Y319)/Syk(Y352)**

Flow cytometric analysis of Jurkat cells, secondary antibody only negative control (blue), untreated (red), treated with pervanadate (green), treated + blocked with non-phospho-peptide (violet) or treated +blocked with phospho-peptide (brown) using Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody, ZapY319-A3 (0.05 µg/mL), Cat. #2076.



**Phospho-Zap70 (Y319)/Syk (Y352)**

Flow cytometric analysis of 3T3 cells, secondary antibody only negative control (blue), or treated with imatinib (gray) or with pervanadate (orange) using 0.01 $\mu$ g/mL isotype control Cat. #2141, or imatinib (red) or pervanadate (green) using Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody, ZapY319-A3 (0.01  $\mu$ g/mL), Cat. #2076.