

12-4065: Phospho-Zap70 (Tyr319)/Syk (Tyr352) (Clone: A3) rabbit mAb

Clonality :	Monoclonal
Clone Name :	Zap70Y319-A3
Application :	FACS
Reactivity :	Human, Mouse
Conjugate :	Unconjugated
Format :	Purified
Alternative Name :	Tyrosine-protein kinase ZAP-70 , 70 kDa zeta-chain associated protein, Syk-related tyrosine kinase, SRK, Tyrosine-protein kinase SYK, Spleen tyrosine kinase, p72-Syk
Isotype :	Rabbit IgG1k
Immunogen Information :	A synthetic phospho-peptide corresponding to residues surrounding Tyr319/Tyr352 of human phospho Zap70/Syk.

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.

Product Info

Amount :	20 µl / 200 µl
Content :	1X PBS, 0.02% NaN ₃ , 50% Glycerol, 0.1% BSA
Storage condition :	Store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

1 µg/mL - 0.001 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml)

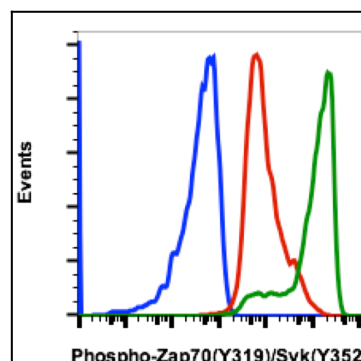


Fig-1: Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with pervanadate (green) using Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody ZapY319-A3 (0.05 µg/mL).

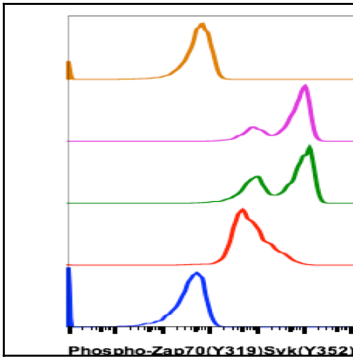


Fig 2 : Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) untreated (red) treated with pervanadate (green) treated + blocked with non-phospho-peptide (violet) or treated +blocked with phospho-peptide (brown) using Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody ZapY319-A3 (0.05 $\mu\text{g}/\text{mL}$).

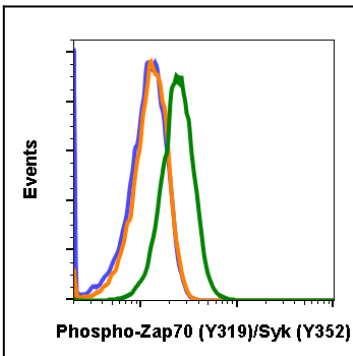


Fig-3: ZapY319-A3 recognizes basal phosphorylation levels in mouse cells. Flow cytometric analysis of L929 cells secondary antibody only (blue) or 0.1 $\mu\text{g}/\text{mL}$ of isotype control (Cat# 12-4086) (orange) or of Phospho-Zap70 (Tyr319)/Syk (Tyr352) antibody ZapY319-A3 (green).

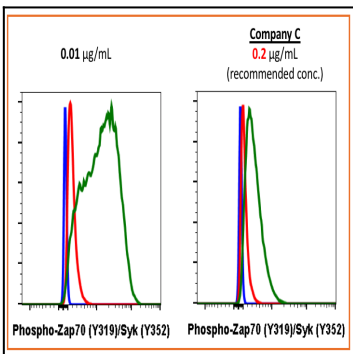


Fig-4: Flow cytometric analysis of Jurkat cells secondary antibody only negative control (blue) or untreated (red) or treated with H₂O₂ (green) using 0.01 $\mu\text{g}/\text{mL}$ Phospho-Zap70 (Y319)/Syk (Y352) antibody ZapY319-A3 or Company C antibody at 0.2 $\mu\text{g}/\text{mL}$ (manufacturer's recommended concentration).