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## Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb (Alexa Fluor® 647 Conjugate)



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Applications:Reactivity:Sensitivity:Source/Isotype:UniProt ID:Entrez-Gene Id:FC-FPH MEndogenousRabbit IgG#P43403, #P434057535, 6850

 Product Usage Information
 Application
 Dilution

 Flow Cytometry (Fixed/Permeabilized)
 1:50

**Storage**Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity / Sensitivity Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb (Alexa Fluor® 647 Conjugate) detects

endogenous levels of Zap-70 only when phosphorylated at Tyr319. It cross-reacts with endogenous levels

of Syk when phosphorylated at Tyr352.

Species predicted to react based on 100% sequence homology:

Rat, Hamster, Chicken, Bovine, Dog, Pig, Horse

**Source / Purification** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to

residues surrounding Tyr319 of human Zap-70.

**Product Description** This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-

house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb

#2717.

**Background** 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).

**Background References** 1. Chu, D.H. et al. (1998) *Immunol Rev* 165, 167-80.

2. Iwashima, M. et al. (1994) Science 263, 1136-9.

3. Neumeister, E.N. et al. (1995) Mol Cell Biol 15, 3171-8.

4. Chan, A.C. et al. (1995) *EMBO J* 14, 2499-508.

5. Williams, B.L. et al. (1999) EMBO J 18, 1832-44.

6. Di Bartolo, V. et al. (1999) J Biol Chem 274, 6285-94.

7. Wiestner, A. et al. (2003) Blood 101, 4944-51.

8. Crespo, M. et al. (2003) N Engl J Med 348, 1764-75.

**Species Reactivity** Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster

X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse

GP: Guinea Pig Rab: rabbit All: all species expected

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