Revision 1

Store at +4C

#73382

Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb (Alexa Fluor® 488 Conjugate)

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
FC-FP	H M	Endogenous	Rabbit IgG	#P43403, #P43405	7535, 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® 488 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.

Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 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

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