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 #2707

Zap-70 (136F12) Rabbit mAb (Alexa Fluor® 647 Conjugate)


Cell Signaling
 TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: FC-FP	Reactivity: H	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P43403	Entrez-Gene Id: 7535
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 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	Zap-70 (136F12) Rabbit mAb (Alexa Fluor® 647 Conjugate) detects endogenous levels of total Zap-70 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding the amino-terminus of human Zap-70. The antibody was conjugated to Alexa Fluor® 647 under optimum conditions with an F/P ratio of 2-6. The Alexa Fluor® 647 dye is maximally excited by red light (e.g. 633 nm He-Ne laser). Antibody conjugates of the Alexa Fluor® 647 dye produce bright far-red-fluorescence emission, with a peak at 665 nm.	
Product Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 647 fluorescent dye and tested in-house for direct flow cytometric analysis of human cells.	
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) <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.	

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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