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#2717

## Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb

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

<b>Applications:</b> W, IF-IC, FC-FP	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 70, 72	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P43403, #P43405	<b>Entrez-Gene Id:</b> 7535, 6850
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### Product Usage Information

#### Application

Western Blotting  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:1000  
1:200 - 1:800  
1:400 - 1:1600

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #31754.

### Specificity/Sensitivity

Phospho-Zap-70 (Tyr319)/Syk (Tyr352) (65E4) Rabbit mAb 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.

### 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).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** Human **M:** Mouse

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