

**ZAP-70 Rabbit Monoclonal Antibody
Product Data Sheet**

Catalog #1267-1

Clone ID: E267 **Lot #:** C05188
Quantity: 100 µl
Type: Rabbit Monoclonal IgG
Species Cross-reactivity: Human Mouse Rat
Applications: WB IHC ICC Flow Cytometry IP
Molecular Wt.: 70 kDa
UniProt ID: P43403

Background: Zap-70, a Syk-family protein tyrosine kinase, plays a critical role in mediating T cell signal transduction in response to T cell receptor (TCR) activation (1). TCR-mediated activation of the Src-family kinases, Lck and Fyn, results in tyrosine phosphorylation of the TCR zeta and CD3 chains. These domains serve as targets for binding of ZAP-70 via its tandem SH2 domains. This binding correlates with activation of ZAP-70, a critical event in T cell activation (2). Following TCR engagement, ZAP-70 is phosphorylated on several tyrosine residues, presumably by two mechanisms: an autophosphorylation and a trans-phosphorylation by the Src-family tyrosine kinase, Lck. Phosphorylation of Tyr319 is required for full activation and increased positive downstream regulation by ZAP-70 (3).

Specificity: A synthetic peptide corresponding to residues in N-terminus of human ZAP-70 was used as immunogen.

Storage Conditions: Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:500
Flow Cyrometry: 1:40
IP: 1:30

Background References:

1. Chu, D.H., et al. The Syk family of protein tyrosine kinases in T-cell activation and development. *Immunol. Rev.* 165: 167–180 (1998).
2. Isakov, N., et al. ZAP-70 binding specificity to T cell receptor tyrosine-based activation motifs: the tandem SH2 domains of ZAP-70 bind distinct tyrosine-based activation motifs with varying affinity. *J Exp Med.* 181: 375–80 (1995).
3. Di Bartolo, V., et al. Tyrosine 319, a newly identified phosphorylation site of ZAP-70, plays a critical role in T cell antigen receptor signaling. *J Biol Chem.* 274: 6285–94 (1999).

Product QC'd by: _____



kDa

150-
100-
75-
50-
37-
25-
20-
15-

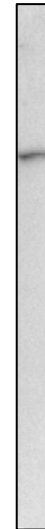


Fig 1. Western blot analysis on Jurkat cell lysate using anti-ZAP-70 RabMAb (cat. #1267-1); dilution 1:500.

For research use only. Not for use in diagnostic or therapeutic applications.

This product was manufactured under U.S. Patent No. 5,675,063 and 5,599,681. For a complete list of protocols and available related products, please visit www.epitomics.com.

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