

ZAP-70

Rabbit Monoclonal Antibody | Product Data Sheet

Catalog# 2869-1

Quantity: 100ul

Clone ID: ER227(2)

Species Cross-reactivity + Human - Mouse - Rat

Applications: + WB + IHC + ICC + IP - FC

Lot #: Please refer to vial

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 antigen receptor (TCR) activation (1). Its involvement in pre-TCR and TCR signaling affects the adaptive immune response and thymocyte development (2). 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 the recruitment of ZAP-70, a critical event in T cell activation (3). Following TCR engagement, ZAP-70 is phosphorylated by several tyrosine residues in the activation loop of the catalytic domain (2). Phosphorylation of Tyr315 and Tyr319 is required for full activation and increased signal propagation of downstream target molecules by ZAP-70 (4).

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

Storage Condition and Buffer: Store at -20 °C. Buffer: Antibody buffer, sodium azide, glycerol, and BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:10,000-50,000

IHC: 1:250 - 500

ICC: 1: 250 - 500

IP: 1: 10 - 100

Background References:

1. Chu DH et al. Immunol Rev. 165:167-80, 1998.
2. Deindl S et al. Proc Natl Acad Sci U S A., 10.1073/pnas.0911512106, 2009.
3. Isakov N et al. J Exp Med. 181(1):375-80, 1995.
4. Di Bartolo V et al. J Biol Chem. 274(10):6285-94, 1999.

Product QC'd by:

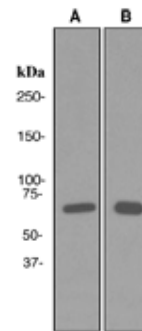


Fig 1. Western blot analysis on (A) human T-78 and (B) Jurkat cell lysates using anti-ZAP-70 RabMAb (cat. # 2869-1).

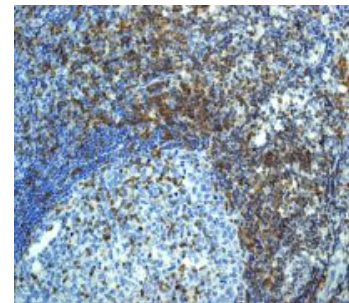


Fig 2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-ZAP-70 RabMAb (cat. #2869-1).

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

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