# ZAP70 monoclonal antibody, clone SBZAP (Biotin)

Catalog # MAB5891 Size 100 ug

### Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant ZAP70.
Immunogen	Recombinant protein corresponding to amino acids 280-309 of human ZAP70.
Host	Mouse
Reactivity	Human
Specificity	human TCR ζ; Zap-70 (Mr 70 KDa).
Form	Liquid
Conjugation	Biotin
lsotype	lgG1, kappa
Recommend Usage	The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.09% sodium azide)
Storage Instruction	Store in the dark at 4°C. Do not freeze. Avoid prolonged exposure to light. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Flow Cytometry



### Gene Info — ZAP70

Entrez GenelD	7535
Gene Name	ZAP70
Gene Alias	FLJ17670, FLJ17679, SRK, STD, TZK, ZAP-70
Gene Description	zeta-chain (TCR) associated protein kinase 70kDa
Omim ID	<u>176947</u>
Gene Ontology	Hyperlink
Gene Summary	This gene encodes an enzyme belonging to the protein tyrosine kinase family, and it plays a role i n T-cell development and lymphocyte activation. This enzyme, which is phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation, functions in the initial step of TCR-mediat ed signal transduction in combination with the Src family kinases, Lck and Fyn. This enzyme is als o essential for thymocyte development. Mutations in this gene cause selective T-cell defect, a sev ere combined immunodeficiency disease characterized by a selective absence of CD8-positive T-cells. Two transcript variants that encode different isoforms have been found for this gene. [provi ded by RefSeq
Other Designations	syk-related tyrosine kinase zeta-chain (TCR) associated protein kinase (70 kD) zeta-chain associ ated protein kinase 70kDa zeta-chain associated protein kinase, 70kD

### **Publication Reference**

The Syk/ZAP-70 protein tyrosine kinase connection to antigen receptor signalling processes.

van Oers NS, Weiss A.

Seminars in Immunology 1995 Aug; 7(4):227.

• F2(Pmp)2-TAM zeta 3, a novel competitive inhibitor of the binding of ZAP-70 to the T cell antigen receptor, blocks early T cell signaling.

Wange RL, Isakov N, Burke TR Jr, Otaka A, Roller PP, Watts JD, Aebersold R, Samelson LE.

The Journal of Biological Chemistry 1995 Jan; 270(2):944.

#### Pathway

• Natural killer cell mediated cytotoxicity

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- Primary immunodeficiency
- <u>T cell receptor signaling pathway</u>

#### Disease

• HIV Infections