

**Mouse Zap70 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16081b**

## Specification

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### Mouse Zap70 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	<a href="#">P43404</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	70112
Antigen Region	530-558

### Mouse Zap70 Antibody (C-term) - Additional Information

**Gene ID** 22637

#### Other Names

Tyrosine-protein kinase ZAP-70, 70 kDa zeta-chain associated protein, Syk-related tyrosine kinase, Zap70, Srk, Zap-70

#### Target/Specificity

This Mouse Zap70 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 530-558 amino acids from the C-terminal region of mouse Zap70.

#### Dilution

WB~~1:1000

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Mouse Zap70 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Mouse Zap70 Antibody (C-term) - Protein Information

**Name** Zap70

**Synonyms** Srk, Zap-70

**Function** Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates motility, adhesion and cytokine expression of mature T-cells, as well as thymocyte development. Contributes also to the development and activation of primary B-lymphocytes. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylations lead to the recruitment of ZAP70 to the doubly phosphorylated TCR component CD3Z through ITAM motif at the plasma membrane. This recruitment serves to localization to the stimulated TCR and to relieve its autoinhibited conformation. Release of ZAP70 active conformation is further stabilized by phosphorylation mediated by LCK. Subsequently, ZAP70 phosphorylates at least 2 essential adapter proteins: LAT and LCP2. In turn, a large number of signaling molecules are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation. Furthermore, ZAP70 controls cytoskeleton modifications, adhesion and mobility of T-lymphocytes, thus ensuring correct delivery of effectors to the APC. ZAP70 is also required for TCR-CD3Z internalization and degradation through interaction with the E3 ubiquitin-protein ligase CBL and adapter proteins SLA and SLA2. Thus, ZAP70 regulates both T-cell activation switch on and switch off by modulating TCR expression at the T-cell surface. During thymocyte development, ZAP70 promotes survival and cell-cycle progression of developing thymocytes before positive selection (when cells are still CD4/CD8 double negative). Additionally, ZAP70-dependent signaling pathway may also contribute to primary B-cells formation and activation through B-cell receptor (BCR).

#### **Cellular Location**

Cytoplasm. Cell membrane; Peripheral membrane protein. Note=In quiescent T-lymphocytes, ZAP70 is cytoplasmic. Upon TCR activation, it is recruited at the plasma membrane by interacting with CD3Z. Colocalizes together with RHOH in the immunological synapse RHOH is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes

#### **Tissue Location**

Isoform 1 and isoform 2 are expressed in thymus, spleen and lymph nodes.

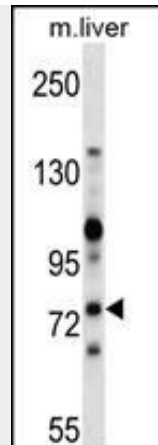
### **Mouse Zap70 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

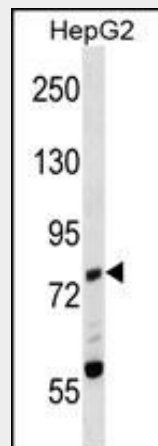
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Mouse Zap70 Antibody (C-term) - Images**





Mouse Zap70 Antibody (C-term) (Cat. #AP16081b) western blot analysis in mouse liver tissue lysates (35ug/lane). This demonstrates the Zap70 antibody detected the Zap70 protein (arrow).



Mouse Zap70 Antibody (C-term) (Cat. #AP16081b) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the Zap70 antibody detected the Zap70 protein (arrow).

### **Mouse Zap70 Antibody (C-term) - Background**

Plays a role in T-cell development and lymphocyte activation. Essential for TCR-mediated IL-2 production. Isoform 1 induces TCR-mediated signal transduction, isoform 2 does not.