

Mouse Zap70 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16081b**Specification**

Mouse Zap70 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P43404](#)**Mouse Zap70 Antibody (C-term) Blocking Peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Zap70 Antibody (C-term) Blocking Peptide - 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 serie 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Zap70 Antibody (C-term) Blocking Peptide - Images**Mouse Zap70 Antibody (C-term) Blocking Peptide - 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.