



ZAP-70

Rabbit Monoclonal antibody(Mab) Catalog # AD80121

Specification

ZAP-70 - Product info

Application IHC-P **Primary Accession** P43403 Reactivity Human Host Rabbit Clonality **Monoclonal** Calculated MW 69872

ZAP-70 - Additional info

Gene ID 7535 Gene Name **ZAP70**

Other Names

Tyrosine-protein kinase ZAP-70, 2.7.10.2, 70 kDa zeta-chain associated protein, Syk-related tyrosine kinase, ZAP70, SRK

Dilution

IHC-P~~Ready-to-use

Storage

Maintain refrigerated at 2-8°C

Precautions ZAP-70 Antibody is for research use only

and not for use in diagnostic or

therapeutic procedures.

ZAP-70 - Protein Information

Name ZAP70

Synonyms SRK

Function Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates motility, adhesion and

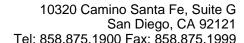
cytokine expression of mature T-cells, as well as thymocyte development.

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 CD247/CD3Z through ITAM

motif at the plasma membrane. This



recruitment serves to localization to the



Cellular Location

Tissue Location

ZAP-70 - Protocols

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

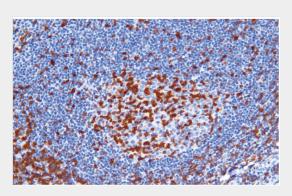
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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-CD247/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).** Cytoplasm. Cell membrane; Peripheral membrane protein. Note=In quiescent T-lymphocytes, it is cytoplasmic. Upon TCR activation, it is recruited at the plasma membrane by interacting with CD247/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 (By similarity). **Expressed in T- and natural killer cells.** Also present in early thymocytes and pro/pre B-cells

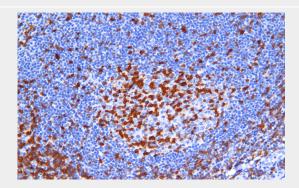


• Cell Culture

ZAP-70 - Images



Tonsil



Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AD80308 performed on the Abcarta® FAIP-30 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a Citrate buffer (pH6. 0). Samples were incubated with primary antibody (Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems Abcepta: AR005 was used as the secondary antibody.