

Rabbit anti-Human ZAP70 Polyclonal Antibody | anti-ZAP70 antibody

ZAP70 Antibody (Center)

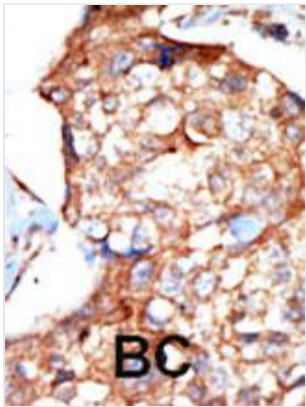
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290712	Rabbit	Human	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

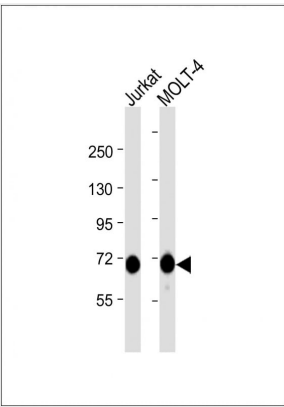
ZAP70; Polyclonal Antibody; ZAP70 Antibody (Center); Tyrosine-protein kinase ZAP-70; 70 kDa zeta-chain associated protein; Syk-related tyrosine kinase; SRK; anti-ZAP70 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Ig
Specificity	This ZAP70 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 252-282 amino acids from the Central region of human ZAP70.
Form/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.
Sequence Length	619
Applicable Applications for anti-ZAP70 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Subtitle	Purified Rabbit Polyclonal Antibody (Pab)
Cellular Location	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).
Tissue Location	Expressed in T- and natural killer cells. Also present in early thymocytes and pro/pre B-cells.
Antigen Region	252-282 aa
Antigen Type	Synthetic Peptide
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
All lanes : Anti-ZAP70 Antibody (A267) at 1:1000 dilution
Lane 1: Jurkat whole cell lysate
Lane 2: MOLT-4 whole cell lysate
Lysates/proteins at 20 ug per lane.
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.
Predicted band size : 70 kDa
Blocking/Dilution buffer: 5% NFD/MTBST.

ADDITIONAL INFORMATION

Related Product Information for anti-ZAP70 antibody	Description: This gene encodes an enzyme belonging to the protein tyrosine kinase family, and it plays a role in 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-mediated signal transduction in combination with the Src family kinases, Lck and Fyn. This enzyme is also essential for thymocyte development. Mutations in this gene cause selective T-cell defect, a severe 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. Background: 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 CD247/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-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).
Product Categories/Family for anti-ZAP70 antibody	Primary Antibodies; Immunology; Signal Transduction
References	Kuroyama, H., et al., Biochem. Biophys. Res. Commun. 315 (4):935-941 (2004). Yang, Y., et al., Mol. Cell. Biol. 23 (21):7667-7677 (2003). Kuhne, M.R., et al., J. Immunol. 171 (2):860-866 (2003). Kremer, K.N., et al., J. Immunol. 171 (1):360-367 (2003). Wiestner, A., et al., Blood 101 (12):4944-4951 (2003).

NCBI AND UNIPROT INFORMATION

NCBI GI #	31455611
NCBI GeneID	7535
NCBI Accession #	NP_001070.2

NCBI GenBank Nucleotide #	NM_001079.3
UniProt Accession #	P43403 ; Q6PIA4 ; Q8IXD6 ; Q9UBS6 ; A6NFP4
Molecular Weight	69872 Da
NCBI Official Full Name	tyrosine-protein kinase ZAP-70 isoform 1
NCBI Official Synonym Full Names	zeta chain of T cell receptor associated protein kinase 70kDa
NCBI Official Symbol	ZAP70
NCBI Official Synonym Symbols	SRK; STD; TZK; STCD; ZAP-70
NCBI Protein Information	tyrosine-protein kinase ZAP-70
UniProt Protein Name	Tyrosine-protein kinase ZAP-70
UniProt Gene Name	ZAP70
UniProt Synonym Gene Names	SRK
UniProt Entry Name	ZAP70_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/zap70-antibody-immunohistochemistry-western-blot-elisa/290712>