



ZAP-70 Rabbit mAb

Catalog No	YP-rAb-17535
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	ZAP70
Protein Name	Tyrosine-protein kinase ZAP-70
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	ZAP-70;Tyrosine-protein kinase ZAP-70;ZAP70 ; SRK ; Tyrosine-protein kinase ZAP-70 ; 70 kDa zeta-chain associated protein ; Syk-related tyrosine kinase;ZAP70
Observed Band	70kD
Calculated Molecular Weight	70kD
Cell Pathway	Cytoplasm . Cell membrane ; Peripheral membrane protein . 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 RHOG in the immunological synapse. RHOG is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes (By similarity). .
Tissue Specificity	Expressed in T- and natural killer cells. Also present in early thymocytes and pro/pre B-cells.
Function	Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,Disease:Defects in ZAP70 are the cause of selective T-cell defect (STD) [MIM:176947]. STD is an autosomal recessive form of severe combined immunodeficiency characterized by a selective absence of CD8-type T-cells.,Domain:The SH2 domain binds to the phosphorylated tyrosine-based activation motif (TAM) of CD3Z.,Function: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.,online information:ZAP70 mutation db,PTM:Phosphorylated on tyrosine residues upon



T-cell antigen receptor (TCR) stimulation. Tyr-319 phosphorylation is essential for full activity.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 SH2 domains.,subcellular location:After antigen stimulation, isoform 1 concentrates at the immunological synapse and isoform 2 remains cytoplasmic.,subunit:Interacts with SLA2 when it is phosphorylated Interacts with CD3Z and with phosphorylated NFAM1. Interacts with CBLB (.By similarity). Interacts with CBL and SLA when it is phosphorylated. The association with SLA (or SLA2) and CBL probably leads to its destruction. Interacts with SHB. Interacts with DEF6 (By similarity). Interacts with FCRL3.,tissue specificity:Expressed in T- and natural killer cells.,

Background

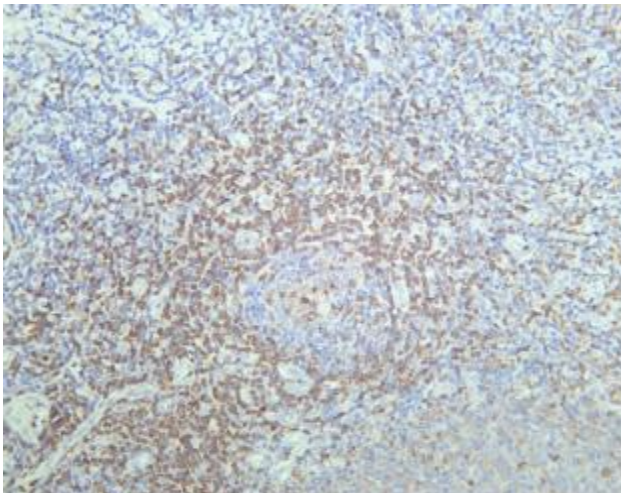
This gene encodes an enzyme belonging to the protein tyrosine kinase family, and it plays a role in T-cell development and lymphocyte activation. This enzyme, which is phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation, functions in the initial step of TCR-mediated signal 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. [provided by RefSeq, Jul 2008],

matters needing attention

Avoid repeated freezing and thawing!

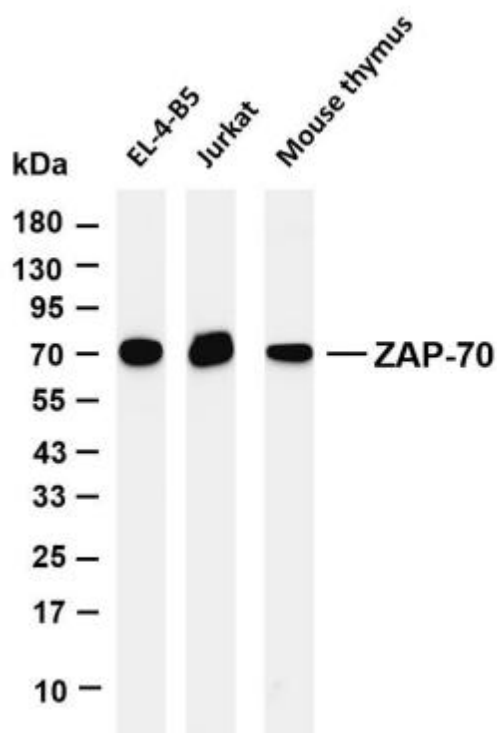
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Human tonsil was stained with anti-ZAP-70 rabbit antibody





Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-ZAP-70 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: EL-4-B5 Lane 2: Jurkat Lane 3: Mouse thymus Predicted band size: 70kDa Observed band size: 70kDa

