



## ZAP-70 mouse mAb

<b>Catalog No</b>	YP-Ab-14234
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human
<b>Applications</b>	WB;IP
<b>Gene Name</b>	zap70
<b>Protein Name</b>	
<b>Immunogen</b>	Purified recombinant human ZAP-70 protein fragments expressed in E.coli.
<b>Specificity</b>	This antibody detects endogenous levels of ZAP-70 and does not cross-react with related proteins.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	wb dilution 1:1000
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	70 kDa zeta associated protein;70 kDa zeta-associated protein;EC 2.7.10.2;FLJ17670;FLJ17679;Selective T cell defect;SRK;STD;Syk related tyrosine kinase;Syk-related tyrosine kinase;Truncated ZAP kinase;Tyrosine protein kinase ZAP70;Tyrosine-protein kinase ZAP-70;TZK;ZAP 70;ZAP-70;ZAP70;ZAP70_HUMAN;Zeta chain associated protein kinase 70kD;Zeta chain associated protein kinase 70kDa;Zeta chain associated protein kinase 70kDa isoform 1;Zeta chain associated protein kinase 70kDa isoform 2;Zeta chain TCR associated protein kinase 70kD;Zeta chain TCR associated protein kinase 70kDa.
<b>Observed Band</b>	70kD
<b>Cell Pathway</b>	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 RHOH in the immunological synapse. RHOH is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes (By similarity). .
<b>Tissue Specificity</b>	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 prote

**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**

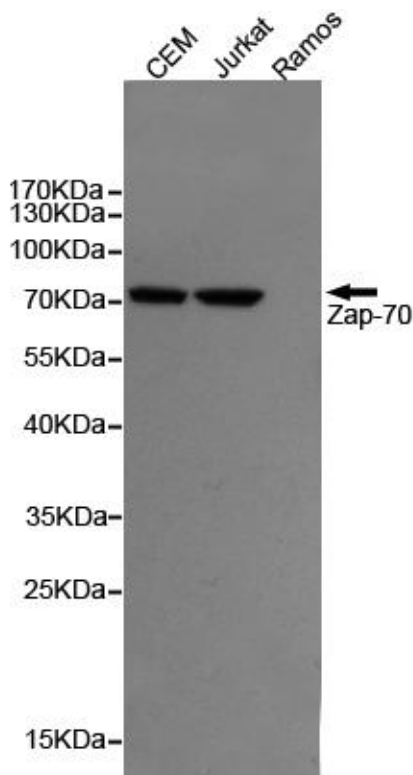
Avoid repeated freezing and thawing!

**Usage suggestions**

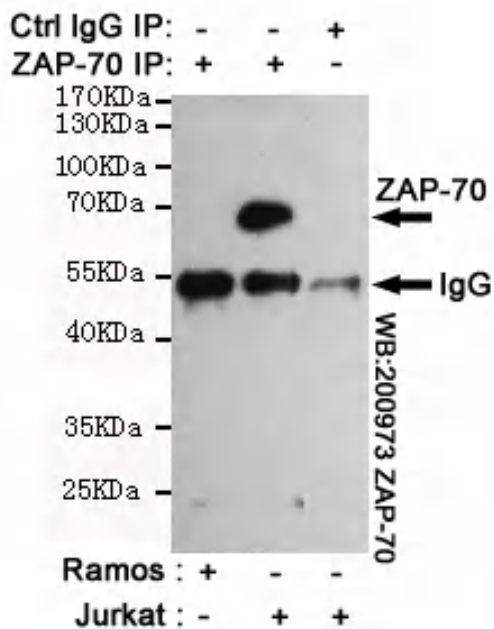
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



## Products Images



Western blot detection of ZAP-70 in CEM and Jurkat cell lysates, negative in the Ramos cell lysates using ZAP-70 mouse mAb (1:1000 diluted). Predicted band size: 70KDa. Observed band size: 70KDa.



Immunoprecipitation analysis of Jurkat cell lysates (ZAP-70 positive expression cell line) and Ramos cell lysates (ZAP-70 negative expression cell line) using ZAP-70 mouse mAb.