

ZAP-70 mouse mAb

Catalog No: YM1392

Reactivity: Human

Applications: WB;IP

Target: ZAP-70

Fields: >>Ras signaling pathway;>>NF-kappa B signaling pathway;>>Natural killer cell

mediated cytotoxicity;>>Th1 and Th2 cell differentiation;>>Th17 cell

differentiation;>>T cell receptor signaling pathway;>>Yersinia infection;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Primary immunodeficiency

Gene Name: zap70

Human Gene Id: 7535

Human Swiss Prot

No:

Mouse Swiss Prot

No:

Immunogen: Purified recombinant human ZAP-70 protein fragments expressed in E.coli.

Specificity: This antibody detects endogenous levels of ZAP-70 and does not cross-react

with related proteins.

P43403

P43404

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Monoclonal, Mouse

Dilution: wb dilution 1:1000

Purification: The antibody was affinity-purified from mouse ascites by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)



Observed Band: 70kD

Cell Pathway: Natural killer cell mediated cytotoxicity; T_Cell_Receptor; Primary

immunodeficiency;

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],

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

Subcellular

Cytoplasm . Cell membrane ; Peripheral membrane protein . In quiescent T
Location : lymphocytes, it is cytoplasmic. Upon TCR activation, it is recruited at the plas

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

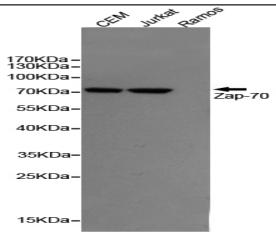
membrane and cytoskeleton fractions in the thymocytes (By similarity). .

Expression: Expressed in T- and natural killer cells. Also present in early thymocytes and

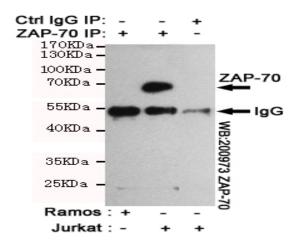
pro/pre B-cells.

Products Images

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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.