磷酸化 zeta 相关蛋白 70 抗体

产品货号： mlR13548

英文名称： phospho-ZAP70 (Tyr292)

中文名称： 磷酸化 zeta 相关蛋白 70 抗体

别　　名： ZAP70 (phospho Y292); ZAP70 (phospho Tyr292); p-Zap-70(Tyr292); p-Zap-70(Y292); p-ZAP70 (Y292); p-ZAP70 (Tyr292); ZAP-70; ZAP 70; ZAP70; zeta-associated protein 70; ZAP-70=protein tyrosine kinase Syk homolog {SH2-like and C-terminal kinase domains}; Tyrosine-protein kinase ZAP-70; 70 kDa zeta-associated protein; Syk-related tyrosine kinase. SRK; STD; TZK; ZAP70_HUMAN; Tyrosine-protein kinase ZAP-70; 70 kDa zeta-chain associated protein.

产品类型： 磷酸化抗体

研究领域： 肿瘤　细胞生物　信号转导　激酶和磷酸酶　t-淋巴细胞

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Dog, Pig, Cow, Horse,

产品应用： WB=1:500-2000 ELISA=1:500-1000 IHC-F=1:400-800 Flow-Cyt=1ug/test ICC=1:100-500 IF=1:100-500 （石蜡切片需做抗原修复）
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

分 子 量： 68kDa

细胞定位： 细胞浆 细胞膜

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原 ： KLH conjugated Synthesised phosphopeptide derived from human Zap-70 around the phosphorylation site of Tyr292:DG(p-Y)TP

亚　　型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ˚C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20˚C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ˚C.

PubMed : PubMed

产品介绍 ： 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:

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 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).

Subunit:

Interacts with NFAM1. Interacts with adapter proteins SLA and SLA2; these interactions negatively regulates T-cell receptor signaling. Interacts with CBLB (By similarity). Interacts with DEF6. Interacts (via SH2 domains) with RHOH; this interaction regulates ZAP70 subcellular localization (By similarity). Interacts with FCRL3. Interacts with VAV1. Interacts with CD247/CD3Z; this interaction docks ZAP70 at the stimulated TCR. Interacts with CBL; this interaction promotes ubiquitination, internalization and subsequent degradation of CD247/CD3Z. Identified in a complex with CBL and UBE2L3.

Subcellular 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. Co-localizes together with RHOH in the immunological synapse. RHOH is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes.

Tissue Specificity:

Expressed in T- and natural killer cells. Also present in early thymocytes and pro/pre B-cells.

Post-translational modifications:

Phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation. Phosphorylation of Tyr-315 and Tyr-319 are essential for ZAP70 positive function on T-lymphocyte activation whereas Tyr-292 has a negative regulatory role. Within the C-terminal kinase domain, Tyr-492 and Tyr-493 are phosphorylated after TCR

induction, Tyr-492 playing a negative regulatory role and Tyr-493 a positive. Tyr-493 is dephosphorylated by PTN22.

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.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily.

Contains 1 protein kinase domain.

Contains 2 SH2 domains.

SWISS:

P43403

Gene ID:

7535

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

ZAP70 为慢性淋巴细胞性白血病的预后指标。

产品图片