

ZAP70 (4B2) Mouse mAb

db6211

Package : 50μL 100μL

Product Name : ZAP70 (4B2) Mouse mAb**Cat.No.:** db6211**Synonyms** : SRK; STD; TZK; STCD; ZAP-70**Application** : WB, IP**Reactivity** : Human**Host species** : Mouse**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).

Immunogen

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

Gene ID

7535

Swiss Prot

P43403

Synonyms

SRK; STD; TZK; STCD; ZAP-70

Reactivity

Human

Application

WB, IP

Recommended dilution	WB: 1:500-1:1000 IP: 1:20
Calculated MW	70 kDa
Observed MW	70 kDa
Host species	Mouse
Clonality	Monoclonal
Clonality No.	4B2-C1-H3
Isotype	IgG2b
Purity	Affinity Purification
Conjugation	Un-conjugated
Storage Stability	Store at -20°C. Supplied in PBS, 50% Glycerol(pH 7.3), 0.02% sodium azide and 0.5% BSA . Stable for 12 months from date of receipt.
□	Western blot analysis of ZAP70 in CEM and Jurkat lysates, negative in the Ramos lysates using ZAP70 antibody.
□	Immunoprecipitation analysis of ZAP70 (4B2) in Jurkat lysates (ZAP70 positive expression cell line) and Ramos lysates (ZAP70 negative expression cell line) using ZAP70 antibody.