Datasheet for ABIN4915233

anti-ZAP70 antibody

2 Images

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Overview

Quantity:	100 µL
Target:	ZAP70
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ZAP70 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This Zap70 antibody is generated from a mouse immunized with a recombinant protein.
Clone:	4C2
Isotype:	IgG2a
Cross-Reactivity:	Human, Mouse
Purification:	Purified by Protein G.

Target Details

Target:	ZAP70
Alternative Name:	Zap70 (ZAP70 Products)
Background:	Synonyms: Srk, mur, mrtle, ZAP-70, Tyrosine-protein kinase ZAP-70, 70 kDa zeta-chain

Target Details

	associated protein, Syk-related tyrosine kinase, Zap70 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 serie of phosphorylations lead to the recruitment of ZAP70 to the doubly phosphorylated TCR component 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-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).
Gene ID:	22637
UniProt:	P43404
Pathways:	TCR Signaling, Ubiquitin Proteasome Pathway

Application Details

Application Notes:	WB 1:300-5000 FCM 1:20-100 IHC-P 1:200-400 IF()
Restrictions:	For Research Use only

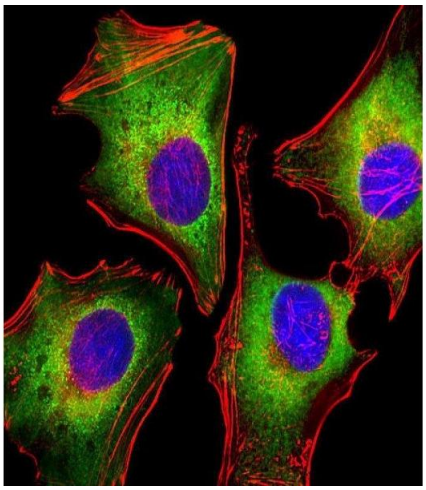
Handling

Format:	Liquid

Handling

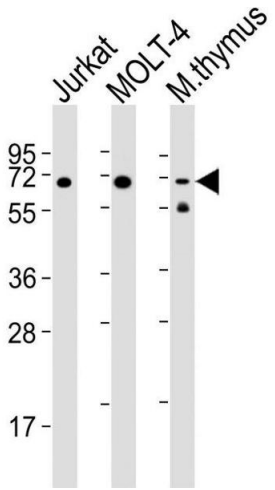
Concentration:	0.5 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C for 12 months.
Expiry Date:	12 months

Images



Immunofluorescence (Cultured Cells)

Image 1. ICC analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labeled with Zap70 (1484CT290.68.62) Monoclonal Antibody (bsm-51298M) at 1:25 dilution, followed by secondary antibody incubation. Immunofluorescence image shows cytoplasm staining of Zap70 (green), actin (red), and nuclear counter stain with DAPI (blue).



Western Blotting

Image 2. Lane 1: Jurkat Cell lysates, Lane 2: MOLT-4 Cell lysates, Lane 3: mouse thymus Cell lysates, probed with Zap70 (1484CT290.68.62) Monoclonal Antibody, unconjugated (bsm-51298M) at 1:2000 overnight at 4°C followed by a conjugated secondary antibody for 60 minutes at 37°C.