Datasheet for ABIN125756

anti-ZAP70 antibody (C-Term)

6 Images | 1 Publication

Go to Product page

Overview

Quantity:	0.1 mg
Target:	ZAP70
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ZAP70 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Immunogen:	Bacterially expressed fusion protein representing C-terminal part (160 amino acids) of human ZAP70 with histidine tag
Clone:	ZAP-03
Isotype:	IgG1
Specificity:	The antibody ZAP-03 reacts with ZAP70, a 70 kDa protein tyrosine kinase expressed in T and NK cells (intracellular antigen). ZAP70 is a molecule susceptible to degradation. It is recommended to use freshly prepared cell lysates (protease inhibitors are essential) to avoid non-specific staining of degradation products.
Cross-Reactivity (Details):	Human
Purification:	Purified by protein-A affinity chromatography.

Product Details

Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	ZAP70
Alternative Name:	ZAP-70 (ZAP70 Products)
Background:	Zeta chain of T cell receptor associated protein k,The ZAP70 (zeta-associated protein of 70 kDa) tyrosine kinase was identified as a tyrosine phosphoprotein that associates with TCR zeta subunit and undergoes tyrosine phosphorylation following TCR stimulation. ZAP70 is a Syk family tyrosine kinase primarily expressed in T and NK cells that plays an essential role in signaling through the TCR. TCR-mediated activation of T cells is crucial to the immune response. In humans, ZAP70 gene mutations resulting in lower ZAP70 protein expression levels or expression of catalytically inactive ZAP70 proteins, have been identified. ZAP70 deficiency results in the absence of mature CD8+ T cells and the prevention of TCR-mediated activation of CD4+ T cells, and it can lead to severe combined immunodeficiency.In patients with chronic lymphocytic leukemia (B-CLL), ZAP70 expression on B cell was shown to be correlated with disease progression and survival. ZAP70 contains two N-terminal SH2 domains (Src homology domain 2) and a C-terminal kinase domain. During T cell activation, the binding of ZAP70 SH2 domains to the phosphorylated zeta subunit on the activated TCR complex causes a colocalization with the Lck tyrosine kinase that phosphorylates ZAP70 on Tyr493 in the activation loop. ZAP70 autophosphorylates multiple tyrosines in the region between the SH2 domains and the kinase domain, including the binding sites for additional SH2-containing signaling proteins such as SLP76, LAT, Lck, PLCgamma1, Vav, Shc, Ras-GAP, and Abl. ZAP70-mediated activation of these downstream effectors leads to the release of intracellular calcium stores, and the transcription of interleukin-2 and other genes important for an immune response.,ZAP-70, ADMIO2
Gene ID:	7535
UniProt:	P43403
Pathways:	TCR Signaling, Ubiquitin Proteasome Pathway

Application Details

Application Notes:	Flow cytometry: Intracellular staining, recommended dilution: 2-5 µg/mL, positive control: HPB-ALL human peripheral blood T cell leukemia cell line. Western blotting: Recommended dilution: 0.5-2 µg/mL.

Application Details

Restrictions:	For Research Use only

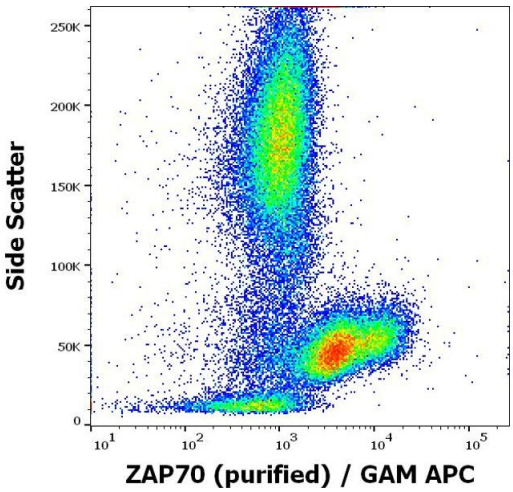
Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

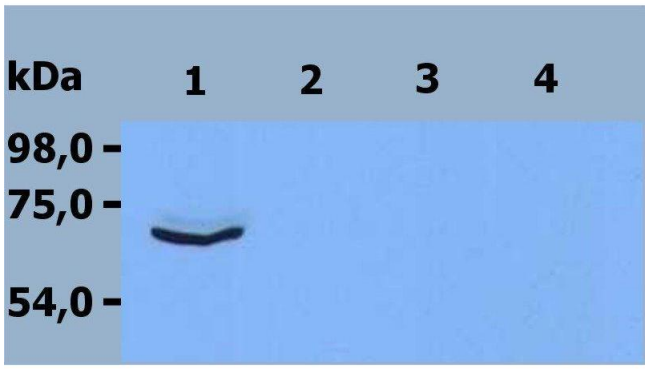
Product cited in:	Hrdinka, Dráber, Stepánek, Ormsby, Otáhal, Angelisová, Brdicka, Paces, Horejsí, Drbal: "PRR7 is a transmembrane adaptor protein expressed in activated T cells involved in regulation of T cell receptor signaling and apoptosis." in: **The Journal of biological chemistry**, Vol. 286, Issue 22, pp. 19617-29, (2011) (PubMed).

Images



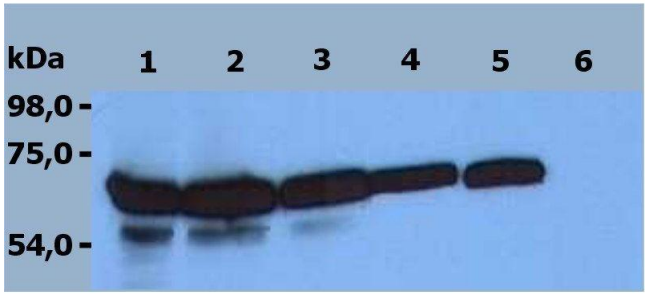
Flow Cytometry

Image 1. Flow cytometry intracellular staining pattern of human peripheral whole blood using anti-ZAP70 (ZAP-03) purified antibody (concentration in sample 9 µg/mL, GAM APC).



Western Blotting

Image 2. Western Blotting analysis (reducing conditions) of HPB-ALL peripheral blood T cell leukemia cell line (1, 3) and RAMOS human Burkitt lymphoma cell line (2, 4); Lane 1, 2: immunostaining with anti-ZAP-70 ; 0.5 µg/ml) Lane 3, 4



Western Blotting

Image 3. Western Blotting analysis (reducing conditions) of HPB-ALL peripheral blood T cell leukemia cell line. Lane 1, 2, 3, 4: immunostaining with dilution range of anti-ZAP-70 (ZAP-03 ; 4 µg/ml (1), 2 µg/ml (2), 1 µg/ml (3), 0.5 µg/ml (4) Lane 5: immunostaining with anti-ZAP-70 comparative antibody Lane 6: immunostaining with Isotype mouse IgG1 control (PPV-06

Please check the product details page for more images. Overall 6 images are available for ABIN125756.