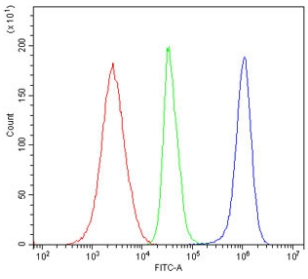
ZAP70 Antibody for FACS / Lymphocyte Activation Flow Cytometry Antibody [clone 9D5] (RQ5941)

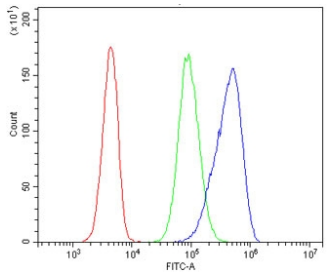
Catalog No.	Formulation	Size
RQ5941	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

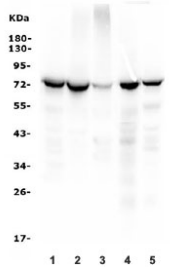
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b
Clone Name	9D5
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P43403
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This ZAP70 antibody is available for research use only.



ZAP70 Antibody for FACS / Lymphocyte Activation Flow Cytometry Antibody. Flow cytometry analysis of human Jurkat T lymphocyte cells evaluating intracellular ZAP70 expression associated with lymphocyte activation using clone ZAP70/2047 at 1 ug per million cells. Cells were fixed, permeabilized, and blocked with goat sera prior to staining to support accurate detection of the cytoplasmic kinase Zeta-chain-associated protein kinase 70 (ZAP70), a marker linked to activated T-cell signaling states. The blue histogram shows a pronounced rightward shift corresponding to ZAP70-positive activated lymphocyte populations, the green histogram represents the isotype control, and the red histogram indicates unstained cells, confirming activation-associated intracellular ZAP70 detection by flow cytometry.



ZAP70 Antibody for FACS / Lymphocyte Activation Flow Cytometry Antibody. Flow cytometry analysis of human 293T cells assessing intracellular ZAP70 expression using clone ZAP70/2047 at 1 ug per million cells. Cells were fixed, permeabilized, and blocked with goat sera prior to staining to enable detection of the cytoplasmic kinase Zeta-chain-associated protein kinase 70 (ZAP70), supporting evaluation of activation-associated signaling features outside of classical lymphocyte models. The blue histogram shows a rightward fluorescence shift corresponding to ZAP70 antibody staining, the green histogram represents the isotype control, and the red histogram indicates unstained cells, demonstrating specific intracellular detection of ZAP70 by flow cytometry.



Western blot testing of 1) human Jurkat, 2) human CCRF-CEM, 3) rat thymus, 4) mouse spleen and 5) mouse thymus lysate with ZAP70 antibody. Expected molecular weight ~70 kDa.

Description

ZAP70 antibody, also known as Zeta-chain-associated protein kinase 70 antibody, recognizes a cytoplasmic signaling kinase that is closely linked to lymphocyte activation and functional immune responses. ZAP70 Antibody for FACS is optimized for intracellular flow cytometry applications focused on identifying activated lymphocyte populations and distinguishing functional immune states across heterogeneous cell populations. ZAP70 is expressed primarily in T cells and natural killer cells, where its activation status reflects immune stimulation and cellular responsiveness.

Upon antigen or stimulus engagement, ZAP70 is recruited to the T-cell receptor complex and undergoes phosphorylation, triggering signaling cascades that drive lymphocyte activation and effector function. This activation-dependent behavior makes ZAP70 a valuable intracellular marker for separating activated T cells from resting populations in flow cytometry assays. Detection of ZAP70 enables monitoring of immune activation in response to experimental stimuli, infection models, or immunomodulatory treatments.

This ZAP70 Antibody for FACS is uniquely positioned for functional immune profiling, emphasizing activation state rather than signaling pathway mechanics. Its use supports multiparametric flow cytometry strategies where intracellular ZAP70 staining is combined with surface activation markers to define activated lymphocyte subsets and characterize immune response dynamics. This positioning makes it particularly useful for studies focused on immune responsiveness, activation kinetics, and functional heterogeneity within lymphocyte populations.

ZAP70 also contributes to activation signaling in natural killer cells, where it supports cytotoxic responses and immune surveillance. Its intracellular localization requires fixation and permeabilization, making it well suited for workflows that integrate surface phenotyping with intracellular activation readouts. Overall, ZAP70 Antibody for FACS provides a targeted approach for analyzing lymphocyte activation states, enabling detailed assessment of immune function and cellular activation profiles in flow cytometry-based research.

Application Notes

Optimal dilution of the ZAP70 Antibody for FACS / Lymphocyte Activation Flow Cytometry Antibody should be determined by the researcher.

Immunogen

Amino acids MRKKQIDVAIKVLKQGTEKADTEEMMREAQIMHQL from the human protein were used as the immunogen for the ZAP70 Antibody for FACS / Lymphocyte Activation Flow Cytometry Antibody.

Storage

After reconstitution, the ZAP70 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

ZAP70 lymphocyte activation antibody, ZAP70 activated T-cell flow cytometry antibody, ZAP70 immune activation FACS antibody, ZAP70 functional flow cytometry antibody, ZAP70 intracellular activation marker antibody