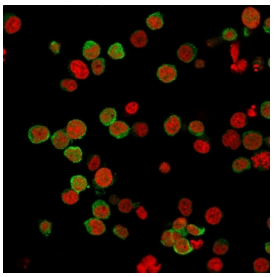
ZAP70 Antibody for IF / Intracellular T-cell Signaling Protein Antibody [clone 2F3.2] (V2934)

Catalog No.	Formulation	Size
V2934-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2934-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2934SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2934IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

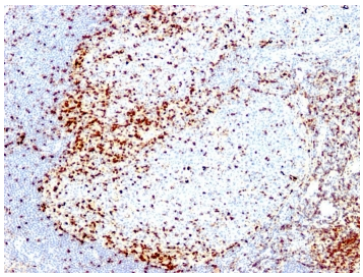
Citations (9)

Bulk quote request

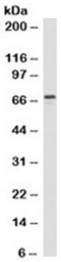
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	2F3.2
Purity	Protein G affinity chromatography
UniProt	P43403
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This ZAP70 antibody is available for research use only.



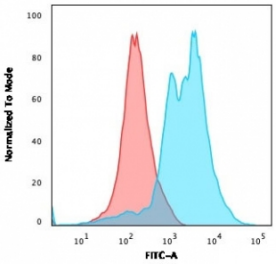
ZAP70 Antibody for IF / Intracellular T-cell Signaling Protein Antibody. Immunofluorescence analysis of PFA-fixed human Jurkat T lymphocyte cells using clone 2F3.2 to detect Zeta-chain-associated protein kinase 70 (ZAP70). ZAP70 antibody staining (green) shows predominantly cytoplasmic localization consistent with its role as an intracellular T-cell receptor signaling kinase, while Reddot nuclear stain (red) highlights cell nuclei. The staining pattern supports visualization of ZAP70 distribution within lymphoid cells, enabling assessment of intracellular signaling protein localization by immunofluorescence imaging.



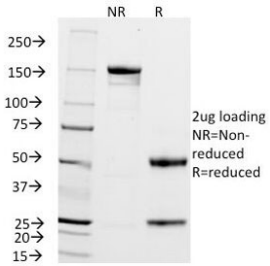
IHC analysis of formalin-fixed, paraffin-embedded human tonsil stained with ZAP70 antibody (clone 2F3.2).



Western blot testing of human Jurkat cell lysate with ZAP70 antibody (clone 2F3.2).



Flow testing of PFA-fixed Jurkat cells with ZAP70 antibody (clone 2F3.2); Red=isotype control, Blue= ZAP70 antibody.



SDS-PAGE analysis of purified, BSA-free ZAP70 antibody (clone 2F3.2) as confirmation of integrity and purity.

Description

ZAP70 antibody, also known as Zeta-chain-associated protein kinase 70 antibody, recognizes a cytoplasmic tyrosine kinase that functions as a central regulator of T-cell receptor signaling and intracellular immune signaling networks. ZAP70 Antibody for IF is specifically designed for immunofluorescence-based imaging of this signaling protein, enabling direct visualization of its intracellular localization and spatial distribution within individual cells. ZAP70 is predominantly localized in the cytoplasm of T lymphocytes and natural killer cells and is highly expressed in lymphoid tissues, making it a key intracellular signaling protein for immunofluorescence studies of adaptive immune cells.

Unlike flow cytometry or western blot approaches that measure population-level expression or total protein levels,

immunofluorescence allows direct observation of ZAP70 within the cellular context, providing insight into its subcellular distribution and organization. ZAP70 Antibody for IF supports high-resolution imaging of cytoplasmic signaling architecture, enabling researchers to examine how this kinase is positioned relative to cellular structures and other signaling components. This spatial perspective is particularly important in T-cell biology, where signaling proteins are dynamically organized following receptor engagement.

ZAP70 is recruited to the T-cell receptor complex upon antigen stimulation, where it binds phosphorylated immunoreceptor tyrosine-based activation motifs on the CD3 complex and initiates downstream signaling cascades. Immunofluorescence analysis enables visualization of ZAP70 distribution within the cytoplasm and supports co-localization studies with signaling adaptors such as LAT and SLP-76, providing insight into the spatial organization of signaling complexes. This makes ZAP70 Antibody for IF especially valuable for studies focused on intracellular signaling topology and protein redistribution in response to stimulation.

This ZAP70 Antibody for IF is uniquely positioned for intracellular localization and imaging applications, emphasizing subcellular visualization rather than protein quantification or population-level analysis. Its use supports multiparametric imaging workflows in which ZAP70 staining is combined with additional markers to define cell identity, signaling state, and structural context. This enables detailed investigation of signaling compartmentalization and cellular heterogeneity at the single-cell level.

The mouse monoclonal clone 2F3.2 antibody has been extensively used in peer-reviewed research, with over 100 publications describing its application in cellular imaging and immunological studies. The clone 2F3.2 antibody is well established for detecting ZAP70 in fixed and permeabilized cells, supporting consistent and reproducible visualization of intracellular protein distribution across experimental systems. Its widespread use reinforces its utility for immunofluorescence-based detection of ZAP70 in lymphoid cells.

ZAP70 is also expressed in natural killer cells, where it contributes to activation signaling and cytotoxic function, further supporting its relevance as an intracellular signaling kinase. Immunofluorescence detection of ZAP70 allows researchers to compare its localization across different immune cell types and to investigate how spatial distribution correlates with signaling activity. Overall, ZAP70 Antibody for IF provides a highly specialized tool for visualizing intracellular signaling proteins, enabling detailed study of subcellular localization, signaling complex organization, and immune cell architecture in immunofluorescence-based research.

Application Notes

Optimal dilution of the ZAP70 Antibody for IF / Intracellular T-cell Signaling Protein Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein (including amino acids 1-254 and the SH2 domains) was used as the immunogen for the ZAP70 Antibody for IF / Intracellular T-cell Signaling Protein Antibody.

Storage

Store the ZAP70 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

ZAP70 immunofluorescence antibody, ZAP70 IF antibody, Zeta-chain-associated protein kinase 70 IF antibody, ZAP70 intracellular signaling antibody, ZAP70 cytoplasmic IF antibody, ZAP70 clone 2F3.2 antibody

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