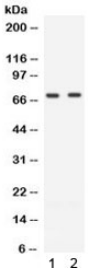
ZAP70 Antibody for WB / Phosphorylation Signaling Western Blot Antibody (R32411)

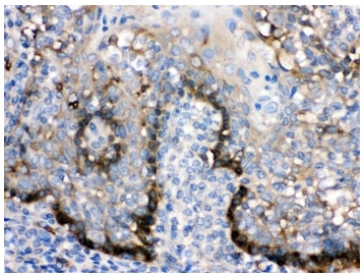
Catalog No.	Formulation	Size
R32411	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P43403
Localization	Cytoplasmic
Applications	Western blot: 0.1-0.5ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This ZAP70 antibody is available for research use only.



ZAP70 Antibody for WB / Phosphorylation Signaling Western Blot Antibody. Western blot analysis of Lane 1: human Jurkat cell lysate, Lane 2: human CEM cell lysate using ZAP70 Antibody for WB / Phosphorylation Signaling Western Blot Antibody. A band is detected at approximately 70 kDa, consistent with the predicted molecular weight of Zeta-chain-associated protein kinase 70 (ZAP70), a phosphorylation-regulated tyrosine kinase central to T-cell receptor signaling. Comparable band intensity across both T-cell leukemia lines supports consistent expression of ZAP70, while its known phosphorylation-dependent regulation makes it a key target for studying signaling activation and kinase modulation by western blot.



IHC testing of FFPE human tonsil with ZAP70 antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to testing.

Description

ZAP70 antibody, also known as Zeta-chain-associated protein kinase 70 antibody, recognizes a cytoplasmic tyrosine kinase that is tightly regulated through phosphorylation during immune activation. ZAP70 Antibody for WB is specifically suited for western blot applications that investigate signaling pathway activation and phosphorylation-associated changes in protein behavior. ZAP70 is expressed in T cells and natural killer cells and functions as a key mediator of intracellular signaling downstream of antigen receptor engagement.

Upon T-cell receptor stimulation, ZAP70 undergoes phosphorylation at multiple tyrosine residues, which promotes its activation and facilitates downstream signaling through adaptor proteins such as LAT and SLP-76. This phosphorylation-dependent activation drives signaling cascades that regulate lymphocyte activation, proliferation, and effector responses. In western blot analysis, phosphorylation events may be reflected by changes in band intensity, subtle shifts in migration, or the appearance of closely spaced bands representing different modification states.

This ZAP70 Antibody for WB is uniquely positioned for studies focused on signaling dynamics and post-translational regulation, emphasizing detection of activation-dependent changes rather than baseline protein expression. Western blotting provides a powerful platform for comparing stimulated versus unstimulated samples, enabling researchers to assess how ZAP70 responds to activation signals and how signaling pathways are modulated under different experimental conditions.

ZAP70 participates in complex signaling networks that integrate upstream receptor engagement with downstream transcriptional responses. Its phosphorylation status directly influences its kinase activity and ability to propagate signaling, making it a critical node in immune signaling pathways. Detection of ZAP70 by western blot supports mechanistic studies aimed at understanding how phosphorylation regulates immune cell function and how signaling pathways are altered in response to external stimuli.

In addition to phosphorylation, ZAP70 activity may be influenced by other regulatory mechanisms that affect protein stability and signaling efficiency. Western blot analysis allows visualization of these regulatory effects through changes in band patterns and signal intensity, providing insight into dynamic signaling processes. Overall, ZAP70 Antibody for WB provides a specialized tool for analyzing phosphorylation-driven signaling events, enabling detailed investigation of kinase activation and intracellular signaling regulation in immune cells.

Application Notes

Optimal dilution of the ZAP70 Antibody for WB / Phosphorylation Signaling Western Blot 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 WB / Phosphorylation Signaling Western Blot 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 phosphorylation antibody, ZAP70 signaling western blot antibody, ZAP70 phospho-related WB antibody, ZAP70 activated kinase antibody, ZAP70 signaling pathway antibody

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