

## Anti-ZAP70 Antibody (2J161)

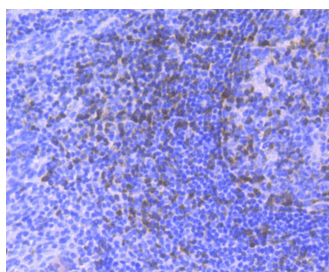
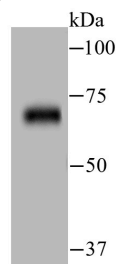
### Product Details

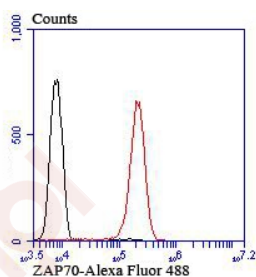
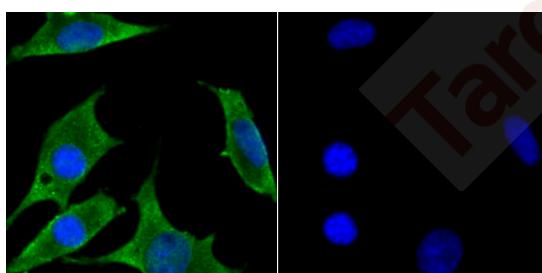
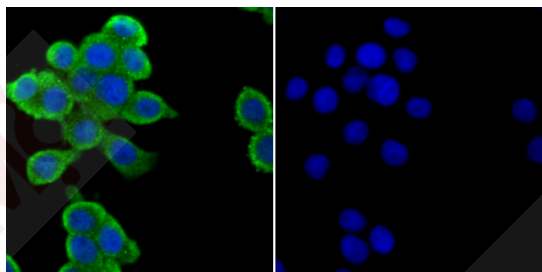
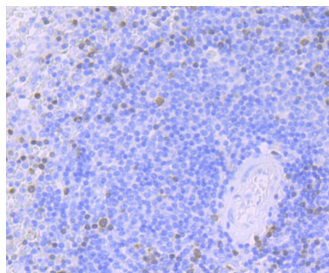
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 70 kDa.
Clone:	2J161
Purification:	ProA affinity purified

### Applications

#### Verified Activity:

1. Western blot analysis of ZAP70 on human thymus tissue lysate using anti-ZAP70 antibody at 1/500 dilution.
2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-ZAP70 antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-ZAP70 antibody. Counter stained with hematoxylin.
4. ICC staining ZAP70 in LOVO cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. ICC staining ZAP70 in SH-SY5Y cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. Flow cytometric analysis of Jurkat cells with ZAP70 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.





Application: FCM, ICC, IHC, IP, WB

Recommended WB: 1:500-1000; IHC: 1:50-200; ICC: 1:50-200; IP: 1:10-50; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: P43403

Synonyms: ZAP70; Tyrosine-protein kinase ZAP-70; 70 kDa zeta-chain associated protein; SRK; Syk-related tyrosine kinase

### Research Background

The activation of T lymphocytes by antigens is mediated by the T cell receptor (TCR) which is a multisubunit complex assembled from at least six different genes. The TCR subunits include the T $\alpha$  and  $\beta$  chains, the CD3  $\gamma$ ,  $\delta$  and  $\epsilon$  chains and a  $\zeta$ -containing homodimer or heterodimer. The disulfide-linked T $\alpha$ - $\beta$  heterodimer is responsible for antigen recognition, but the short 5 amino acid cytoplasmic domains of T $\alpha$  and  $\beta$  are unlikely to be sufficient to couple to

intracellular signaling pathways. In contrast, the structured features of the CD3 and  $\zeta$  subunits suggest a role in signal transduction. Of these, the  $\zeta$  chain, which is expressed as either a homodimer or heterodimer, has a short extracellular domain of only 9 amino acids, but a larger 113 amino acid cytoplasmic domain. A tyrosine phosphoprotein, ZAP-70, has been identified that associates with  $\zeta$  and undergoes tyrosine phosphorylation following TCR stimulation.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481