**Product Name: ZAP-70 (phospho Tyr292) Rabbit Polyclonal Antibody**
**Catalog #: APRab05642**

## Summary

| | |
|---|---|
| **Production Name** | ZAP-70 (phospho Tyr292) Rabbit Polyclonal Antibody |
| **Description** | Rabbit Polyclonal Antibody |
| **Host** | Rabbit |
| **Application** | WB |
| **Reactivity** | Human,Mouse |

## Performance

| | |
|---|---|
| **Conjugation** | Unconjugated |
| **Modification** | Phospho Antibody |
| **Isotype** | IgG |
| **Clonality** | Polyclonal |
| **Form** | Liquid |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |
| **Buffer** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N. |
| **Purification** | Affinity purification |

## Immunogen

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|---|---|
| **Gene Name** | ZAP70 |
| **Alternative Names** | ZAP70; SRK; Tyrosine-protein kinase ZAP-70; 70 kDa zeta-chain associated protein; Syk-related tyrosine kinase |
| **Gene ID** | 7535.0 |
| **SwissProt ID** | P43403.The antiserum was produced against synthesized peptide derived from human ZAP-70 around the phosphorylation site of Tyr292. AA range:258-307 |

## Application

| | |
|---|---|
| **Dilution Ratio** | WB 1:500-1:2000. ELISA: 1:5000. |
| **Molecular Weight** | 70kD |

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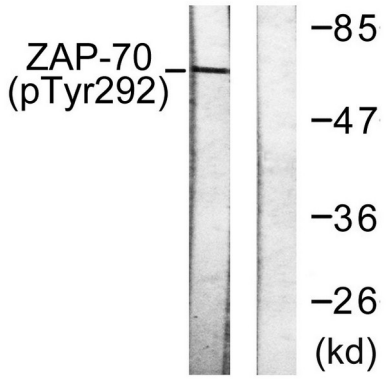
## Background

This gene encodes an enzyme belonging to the protein tyrosine kinase family, and it plays a role in T-cell development and lymphocyte activation. This enzyme, which is phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation, functions in the initial step of TCR-mediated signal transduction in combination with the Src family kinases, Lck and Fyn. This enzyme is also essential for thymocyte development. Mutations in this gene cause selective T-cell defect, a severe combined immunodeficiency disease characterized by a selective absence of CD8-positive T-cells. Two transcript variants that encode different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,disease:Defects in ZAP70 are the cause of selective T-cell defect (STD) [MIM:176947]. STD is an autosomal recessive form of severe combined immunodeficiency characterized by a selective absence of CD8-type T-cells.,domain:The SH2 domain binds to the phosphorylated tyrosine-based activation motif (TAM) of CD3Z.,function:Plays a role in T-cell development and lymphocyte activation. Essential for TCR-mediated IL-2 production. Isoform 1 induces TCR-mediated signal transduction, isoform 2 does not.,online information:ZAP70 mutation db,PTM:Phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation. Tyr-319 phosphorylation is essential for full activity.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 SH2 domains.,subcellular location:After antigen stimulation, isoform 1 concentrates at the immunological synapse and isoform 2 remains cytoplasmic.,subunit:Interacts with SLA2 when it is phosphorylated. Interacts with CD3Z and with phosphorylated NFAM1. Interacts with CBLB (By similarity). Interacts with CBL and SLA when it is phosphorylated. The association with SLA (or SLA2) and CBL probably leads to its destruction. Interacts with SHB. Interacts with DEF6 (By similarity). Interacts with FCRL3.,tissue specificity:Expressed in T- and natural killer cells.,

## Research Area

Natural killer cell mediated cytotoxicity;T_Cell_Receptor;Primary immunodeficiency;

## Image Data




Western blot analysis of lysates from Jurkat cells treated with UV 15 ', using ZAP-70 (Phospho-Tyr292) Antibody. The lane on the right is blocked with the phospho peptide.

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## Note

For research use only.