

## Product datasheet for **AP20699PU-M**

### ZAP70 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on paraffin sections:</b> 1/50-1/200. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of ZAP-70 protein. (region surrounding Ser313)
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 70 kDa
Gene Name:	zeta chain of T cell receptor associated protein kinase 70kDa
Database Link:	<u><a href="#">Entrez Gene 22637 Mouse</a></u> <u><a href="#">Entrez Gene 301348 Rat</a></u> <u><a href="#">Entrez Gene 7535 Human</a></u> <u><a href="#">P43403</a></u>



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**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  $\alpha$  and  $\beta$  chains, the CD3  $\gamma$ ,  $\delta$  and  $\epsilon$  chains and a  $\zeta$ -containing homodimer or heterodimer. The disulfide-linked  $\alpha$ - $\beta$  heterodimer is responsible for antigen recognition, but the short five amino acid cytoplasmic domains of  $\alpha$  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 nine 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.

**Synonyms:**

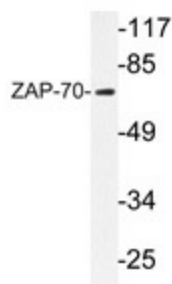
ZAP-70, ZAP 70, SRK

**Protein Families:**

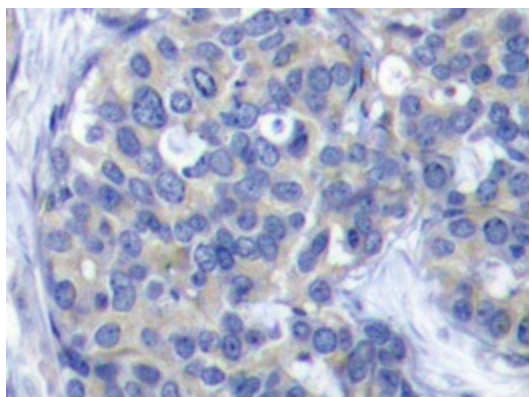
Druggable Genome, Protein Kinase

**Protein Pathways:**

Natural killer cell mediated cytotoxicity, Primary immunodeficiency, T cell receptor signaling pathway

**Product images:**


Western blot analyzes of ZAP-70 antibody (Cat.-No.: [AP20699PU-N]) in extracts from Jurkat cells.



Immunohistochemistry analyzes of ZAP-70 antibody (Cat.-No.: [AP20699PU-N]) in paraffin-embedded human breast carcinoma tissue.