

Product datasheet for **AP20821PU-N**

ZAP70 pTyr493 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500 - 1/1000. Immunohistochemistry on paraffin sections 1/50 - 1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of ZAP-70 protein only when phosphorylated at Tyr493.
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 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:	Homo sapiens zeta chain of T cell receptor associated protein kinase 70kDa (ZAP70), transcript variant 1
Database Link:	<u>Entrez Gene 22637 Mouse</u> <u>Entrez Gene 301348 Rat</u> <u>Entrez Gene 7535 Human P43403</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 Ti alpha and beta chains, the CD3 gamma, delta and epsilon chains and a zeta-containing homodimer or heterodimer. The protein tyrosine kinase ZAP-70 binds to the phosphorylated immunoreceptor tyrosine-base activation motifs (ITAMs) of the TCR zeta chain through two Src homology (SH2) domains. This binding results in the phosphorylation of ZAP-70 on multiple tyrosine residues, including Tyr 292 and Tyr 319. ZAP-70 is autophosphorylated on Tyr 292, which is thought to negatively regulate ZAP-70 function in lymphocytes. Alternatively, ZAP-70 is positively regulated by phosphorylation on Tyr 319, which mediates the SH2-dependent interaction between Lck and ZAP-70.

Synonyms:

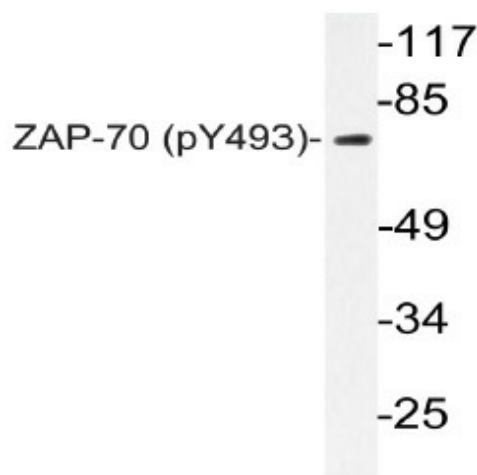
ZAP-70, ZAP 70, SRK

Protein Families:

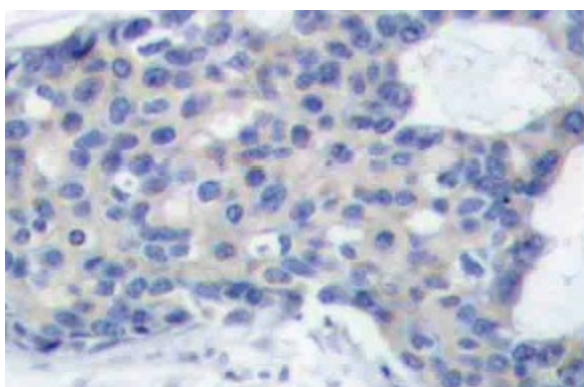
Druggable Genome, Protein Kinase

Protein Pathways:

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

Product images:


Western blot (WB) analyzes of p-ZAP-70 (Cat.-No.: AP20821PU-N) in extracts from Jurkat cells.



Immunohistochemistry (IHC) analyzes of p-ZAP-70 antibody (Cat.-No.: AP20821PU-N) in paraffin-embedded human breast carcinoma tissue.