ZAP-70 (Phospho Tyr493) Rabbit pAb

CatalogNo: YP0277

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat	• WB,IHC,IF,ELISA

MW	Isotype
• 70kD (Observed)	• IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:5000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human ZAP-70 around the phosphorylation site of Tyr493. AA range:460-509
Specificity	Phospho-ZAP-70 (Y493) Polyclonal Antibody detects endogenous levels of ZAP-70 protein only when phosphorylated at Y493.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):SYyTA

Target Information

Gene name ZAP70

Protein Name Tyrosine-protein kinase ZAP-70

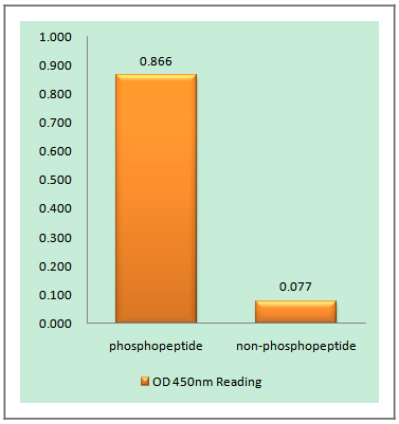
Organism	Gene ID	UniProt ID
Human	7535;	P43403;
Mouse	22637;	P43404;

Cellular Localization Cytoplasm . Cell membrane ; Peripheral membrane protein . In quiescent T-lymphocytes , it is cytoplasmic. Upon TCR activation , it is recruited at the plasma membrane by interacting with CD247/CD3Z. Colocalizes together with RHOH in the immunological synapse. RHOH is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes (By similarity) . .

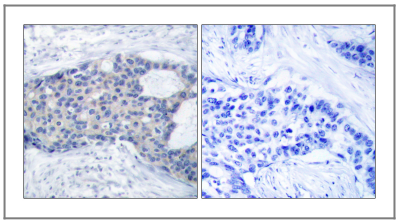
Tissue specificity Expressed in T- and natural killer cells. Also present in early thymocytes and pro/pre B-cells.

Function 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. ,

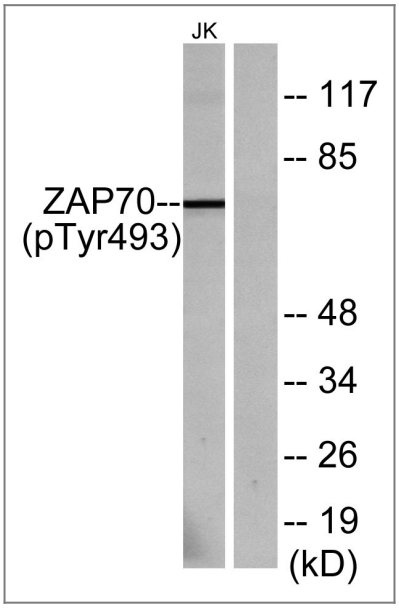
Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using ZAP-70 (Phospho-Tyr493) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using ZAP-70 (Phospho-Tyr493) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from Jurkat cells, using ZAP-70 (Phospho-Tyr493) Antibody. The lane on the right is blocked with the phospho peptide.

Contact information

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Please scan the QR code to access additional product information: **ZAP-70 (Phospho Tyr493) Rabbit pAb**