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Datasheet for ABIN6255884  
**anti-ZAP70 antibody (pTyr319)**

8 Images

Overview

|                      |                                                                                                              |
|----------------------|--------------------------------------------------------------------------------------------------------------|
| Quantity:            | 100 µL                                                                                                       |
| Target:              | ZAP70                                                                                                        |
| Binding Specificity: | pTyr319                                                                                                      |
| Reactivity:          | Human, Mouse, Rat                                                                                            |
| Host:                | Rabbit                                                                                                       |
| Clonality:           | Polyclonal                                                                                                   |
| Conjugate:           | This ZAP70 antibody is un-conjugated                                                                         |
| Application:         | Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC) |

Product Details

|                       |                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen:            | A synthesized peptide derived from human ZAP70 around the phosphorylation site of Tyr319.                                                               |
| Isotype:              | IgG                                                                                                                                                     |
| Specificity:          | Phospho-ZAP70 (Tyr319) Antibody detects endogenous levels of ZAP70 only when phosphorylated at Tyrosine 319.                                            |
| Predicted Reactivity: | Pig,Bovine,Horse,Sheep,Rabbit,Dog,Chicken,Xenopus                                                                                                       |
| Purification:         | The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns. |

Target Details

|         |       |
|---------|-------|
| Target: | ZAP70 |
|---------|-------|

## Target Details

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Alternative Name: ZAP70 ([ZAP70 Products](#))

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**Background:** Description: Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates motility, adhesion and cytokine expression of mature T-cells, as well as thymocyte development. Contributes also to the development and activation of primary B-lymphocytes. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylations lead to the recruitment of ZAP70 to the doubly phosphorylated TCR component CD247/CD3Z through ITAM motif at the plasma membrane. This recruitment serves to localization to the stimulated TCR and to relieve its autoinhibited conformation. Release of ZAP70 active conformation is further stabilized by phosphorylation mediated by LCK. Subsequently, ZAP70 phosphorylates at least 2 essential adapter proteins: LAT and LCP2. In turn, a large number of signaling molecules are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation. Furthermore, ZAP70 controls cytoskeleton modifications, adhesion and mobility of T-lymphocytes, thus ensuring correct delivery of effectors to the APC. ZAP70 is also required for TCR-CD247/CD3Z internalization and degradation through interaction with the E3 ubiquitin-protein ligase CBL and adapter proteins SLA and SLA2. Thus, ZAP70 regulates both T-cell activation switch on and switch off by modulating TCR expression at the T-cell surface. During thymocyte development, ZAP70 promotes survival and cell-cycle progression of developing thymocytes before positive selection (when cells are still CD4/CD8 double negative). Additionally, ZAP70-dependent signaling pathway may also contribute to primary B-cells formation and activation through B-cell receptor (BCR).

Gene: ZAP70

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Molecular Weight: 70kDa

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Gene ID: 7535

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UniProt: [P43403](#)

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Pathways: [TCR Signaling, Ubiquitin Proteasome Pathway](#)

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## Application Details

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Application Notes: WB 1:500-1:2000, IHC 1:50-1:200, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000

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Restrictions: For Research Use only

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## Handling

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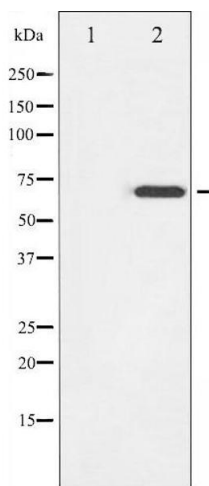
Format: Liquid

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## Handling

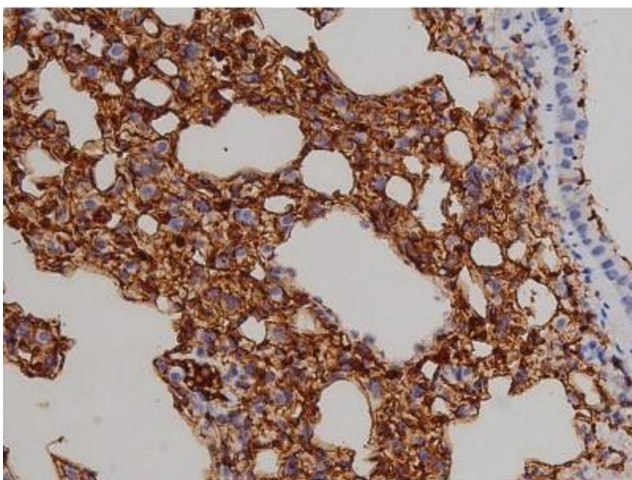
|                    |                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------|
| Concentration:     | 1 mg/mL                                                                                                                |
| Buffer:            | Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.                  |
| Preservative:      | Sodium azide                                                                                                           |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage:           | -20 °C                                                                                                                 |
| Storage Comment:   | Store at -20 °C. Stable for 12 months from date of receipt.                                                            |
| Expiry Date:       | 12 months                                                                                                              |

## Images



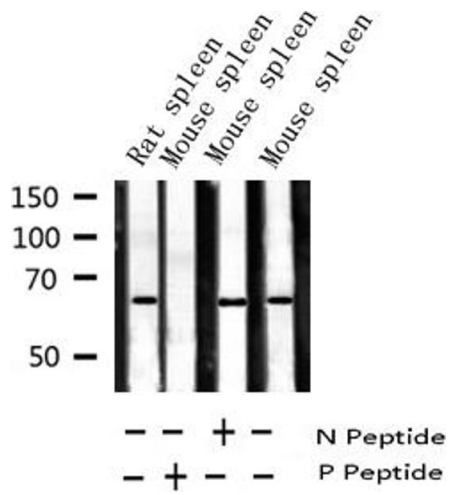
### Western Blotting

**Image 1.** Western blot analysis of ZAP-70 phosphorylation expression in Jurkat whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



### Immunohistochemistry

**Image 2.** ABIN6267521 at 1/200 staining Mouse lung2.JPG tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



### Western Blotting

**Image 3.** Western blot analysis of Phospho-ZAP-70 (Tyr319) expression in various lysates

Please check the [product details page](#) for more images. Overall 8 images are available for ABIN6255884.