

## Product datasheet

# Anti-ZAP70 antibody [SBZAP] ab25541

### Overview

<b>Product name</b>	Anti-ZAP70 antibody [SBZAP]
<b>Description</b>	Mouse monoclonal [SBZAP] to ZAP70
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> ELISA, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide: PQRRIDTLNSDGYTPEPARITSPDKPRPMP conjugated to KLH, corresponding to amino acids 280-309 of Human ZAP70
	<a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 8.20 Constituent: 100% Borate buffered saline
<b>Purity</b>	IgG fraction
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SBZAP
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

### Applications

Our [Abpromise guarantee](#) covers the use of **ab25541** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use 1µg for 10 <sup>6</sup> cells.

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Flow Cyt		Use at an assay dependent concentration. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Expressed in T- and natural killer cells.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily. Contains 1 protein kinase domain. Contains 2 SH2 domains.
<b>Domain</b>	The SH2 domains bind to the phosphorylated tyrosine-based activation motif (TAM) of CD3Z and the non-canonical phosphorylated tyrosine-based activation motif (TAM) of RHOH.
<b>Post-translational modifications</b>	Phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation. Tyr-319 phosphorylation is essential for full activity.
<b>Cellular localization</b>	Cytoplasm. Cell membrane. After antigen stimulation, isoform 1 concentrates at the immunological synapse and isoform 2 remains cytoplasmic. Co-localizes together with RHOH in the immunological synapse. RHOH is required for its proper localization to the cell membrane and cytoskeleton fractions in the thymocytes.

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