abcam

Product datasheet

Anti-ZAP70 antibody [SBZAP] ab25541

Overview

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 8.20 Constituent: 100% Borate buffered saline
Purity	IgG fraction
Clonality	Monoclonal
Clone number	SBZAP
Isotype	IgG1
Light chain type	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 10^6 cells.

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration. ab170190-Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

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.
Tissue specificity	Expressed in T- and natural killer cells.
Involvement in 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.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. SYK/ZAP-70 subfamily. Contains 1 protein kinase domain. Contains 2 SH2 domains.
Domain	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.
Post-translational modifications	Phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation. Tyr-319 phosphorylation is essential for full activity.
Cellular localization	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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