Product datasheet

Anti-ZAP70 antibody [YE291] ab32429

Overview

Product name Anti-ZAP70 antibody [YE291]
Description Rabbit monoclonal [YE291] to ZAP70
Host species Rabbit
Tested applications Suitable for: WB, IHC-P, ICC, Flow Cyt, IP
Species reactivity Reacts with: Human
Immunogen Synthetic peptide within Human ZAP70 aa 550 to the C-terminus (C terminal). The exact sequence is proprietary.
Positive control WB: Jurkat cell lysate. IHC-P: Human lymph node tissue.
General notes Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.
This product is a recombinant rabbit monoclonal antibody.

Properties

Form Liquid
Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer pH: 7.20
Preservative: 0.01% Sodium azide
 Constituents: 49% PBS, 50% Glycerol, 0.05% BSA
Clonality Monoclonal
Clone number YE291
Isotype IgG

Applications

Our Abpromise guarantee covers the use of ab32429 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
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.

Images

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>1/500. Detects a band of approximately 70 kDa (predicted molecular weight: 70 kDa).</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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<tr>
<td>ICC</td>
<td>1/100 - 1/250.</td>
<td></td>
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<tr>
<td>Flow Cyt</td>
<td>1/80, ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
<td></td>
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<tr>
<td>IP</td>
<td>1/50.</td>
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Target
Western blot - Anti-ZAP70 antibody [YE291] (ab32429) at 1/500 dilution + Jurkat cell lysate

**Predicted band size:** 70 kDa
**Observed band size:** 70 kDa

Ab32429, at a 1/100 dilution, staining ZAP70 in paraffin embedded human lymph node tissue by immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ab32429 showing positive staining in Normal tonsil tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ab32429 showing negative staining in Normal liver tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZAP70 antibody [YE291] (ab32429)

ab32429 showing negative staining in Normal heart tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZAP70 antibody [YE291] (ab32429)

ab32429 showing negative staining in Normal kidney tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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