

Product datasheet

Anti-ZAP70 (phospho Y292) antibody [EPR1073] α b76501

Recombinant RabMAb

★★★★★ **1 Abreviews** [5 Images](#)

Overview

Product name	Anti-ZAP70 (phospho Y292) antibody [EPR1073]
Description	Rabbit monoclonal [EPR1073] to ZAP70 (phospho Y292)
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, ICC/IF, Dot blot Unsuitable for: IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat whole cell lysate (ab7899) treated with pervanadate. ICC/IF: Untreated and pervanadate treated Jurkat cells. Flow Cyt (intra): Untreated and pervanadate treated Jurkat cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR1073
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab76501 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

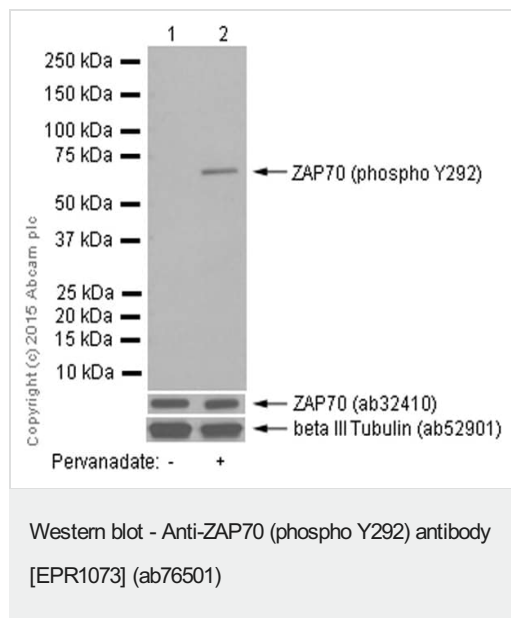
Application	Abreviews	Notes
Flow Cyt (Intra)		1/20. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★ ★ ★ ★ ★ (1)	1/5000 - 1/10000. Predicted molecular weight: 70 kDa.
ICC/IF		1/250 - 1/500.
Dot blot		1/1000.

Application notes Is unsuitable for IHC-P or IP.

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.

Images



All lanes : Anti-ZAP70 (phospho Y292) antibody [EPR1073] (ab76501) at 1/5000 dilution

Lane 1 : Untreated Jurkat (human acute T cell leukemia) whole cell lysates

Lane 2 : Jurkat (human acute T cell leukemia) treated with pervanadate whole cell lysates

Lysates/proteins at 10 µg per lane.

Secondary

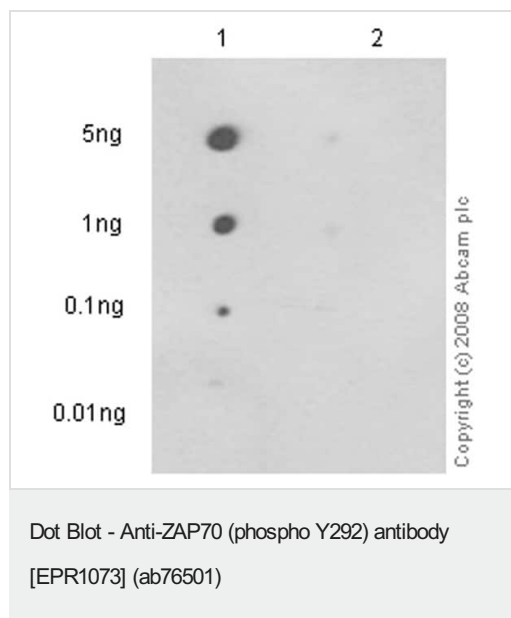
All lanes : Peroxidase-conjugated goat anti-rabbit IgG, (H+L) at 1/1000 dilution

Predicted band size: 70 kDa

Observed band size: 70 kDa

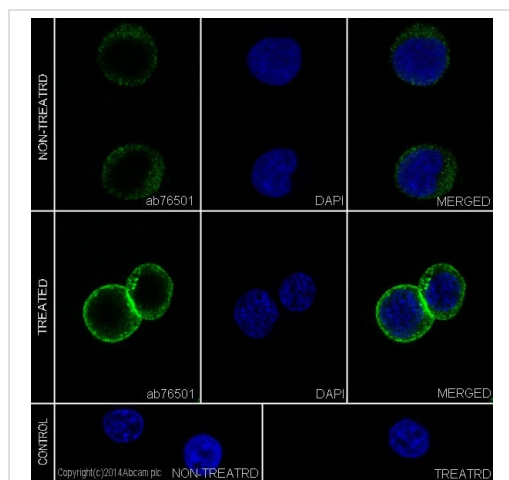
Exposure time: 3 minutes

Blocking and dilution buffer: 5% NFDM/TBST.



Dot blot analysis of varying amounts of ZAP70 (pY292) phospho peptide (Lane 1) and ZAP70 non-phospho peptide (Lane 2) using ab76501 at a dilution of 1/1000. A peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/2500).

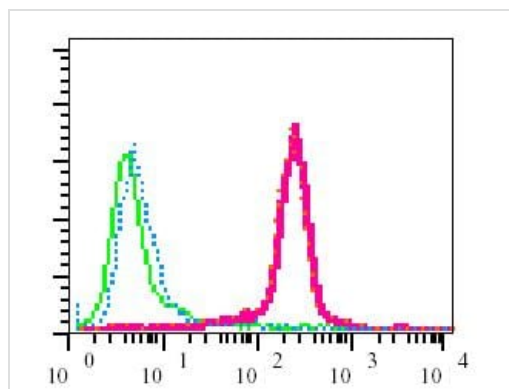
Exposure time: 3 minutes.



Immunocytochemistry/ Immunofluorescence - Anti-ZAP70 (phospho Y292) antibody [EPR1073] (ab76501)

Immunocytochemistry/Immunofluorescence analysis of untreated and pervanadate treated Jurkat (human acute T cell leukemia) cells labelling ZAP70 (phospho Y292) with ab76501 at a dilution of 1/250. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Treated samples were starved overnight followed by incubation with 1mM pervanadate for 30 minutes. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. Negative control using secondary antibody only.

Image shows increased cytoplasmic staining after pervanadate treatment.



Flow Cytometry (Intracellular) - Anti-ZAP70 (phospho Y292) antibody [EPR1073] (ab76501)

Intracellular flow cytometric analysis of permeabilized Jurkat cells, untreated (green), pervanadate treated (red) stained with ab76501, at 1/20 dilution (blue) and pervanadate-treated Jurkat cells using the same antibody preincubated with phospho- ZAP70 (Tyr 292) peptide (blue) or non-phospho- ZAP70 (Tyr 292)).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-ZAP70 (phospho Y292) antibody [EPR1073]
(ab76501)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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