

Product datasheet

Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y] (Alexa Fluor® 647) ab237452

Recombinant RabMAb

2 Images

Overview

Product name	Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y] (Alexa Fluor® 647)
Description	Rabbit monoclonal [EP776(2)Y] to CD3 zeta (phospho Y83) (Alexa Fluor® 647)
Host species	Rabbit
Conjugation	Alexa Fluor® 647. Ex: 652nm, Em: 668nm
Specificity	This antibody detects CD3 zeta phosphorylated on tyrosine 83.
Tested applications	Suitable for: ICC/IF, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human CD3 zeta (phospho Y83). The exact sequence is proprietary.
Positive control	ICC/IF: Pervanadate (1mM, 30min) treated Jurkat cells. Flow Cyt: Serum-starved and treated with 1 mM pervanadate (4 Hrs) Jurkat cells.
General notes	<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>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.</p> <p>This product is a recombinant rabbit monoclonal antibody.</p>

Properties

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. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP776(2)Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab237452** in the following tested applications.

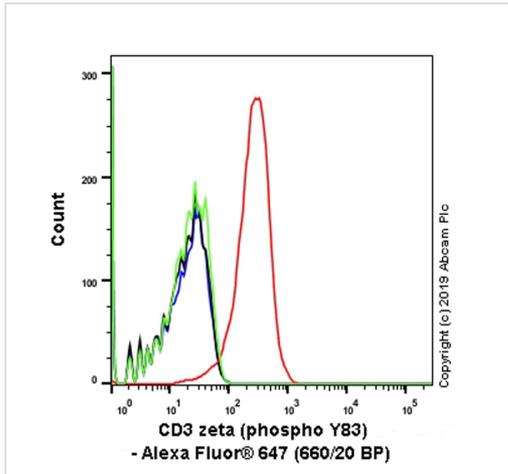
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100. This product gave a positive signal in pervanadate (1mM, 30min) treated Jurkat fixed with 4% formaldehyde (10 min).
Flow Cyt		1/500.

Target

Function	Probable role in assembly and expression of the TCR complex as well as signal transduction upon antigen triggering.
Involvement in disease	Defects in CD247 are the cause of immunodeficiency due to defect in CD3-zeta (CD3ZID) [MIM:610163]. An immunological deficiency characterized by T-cells impaired immune response to alloantigens, tetanus toxoid and mitogens.
Sequence similarities	Belongs to the CD3Z/FCER1G family. Contains 3 ITAM domains.
Domain	The ITAM domains mediate interaction with SHB.
Post-translational modifications	Phosphorylated on Tyr residues after T-cell receptor triggering.
Cellular localization	Membrane.

Images

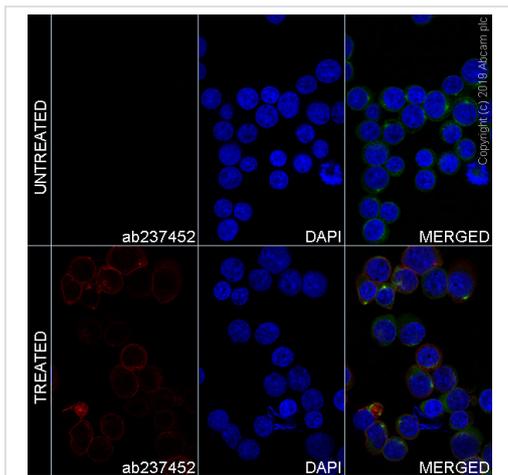


Flow Cytometry - Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y] (Alexa Fluor® 647) (ab237452)

Overlay histogram showing serum-starved Jurkat cells (Human epidermoid carcinoma epithelial cell) treated (red line) or untreated (green line) with 1 mM pervanadate for 4 hours. Cells were fixed with 4% formaldehyde and then permeabilized with 90% methanol. The cells were then incubated in 1x PBS/10% normal serum to block non-specific protein-protein interactions followed by the antibody (ab237452, red and green lines) (1×10^6 in 100 μ l at 1/500 dilution (1 μ g/ml)) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 647 (ab199093) used at the same concentration and conditions. Unlabeled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 17 mW Red laser (633 nm) and 660/20 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y] (Alexa Fluor® 647) (ab237452)

ab237452 staining CD3 zeta in Jurkat cells +/- pervanadate (1mM, 30min). The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237452 at 1/100 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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