

Alexa Fluor® 488 Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y] ab237451

Recombinant RabMAb

3 Images

Overview

Product name	Alexa Fluor® 488 Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y]
Description	Alexa Fluor® 488 Rabbit monoclonal [EP776(2)Y] to CD3 zeta (phospho Y83)
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: Pervanadate (1mM, 30min) treated Jurkat cells. Flow Cyt (intra): Serum-starved and treated with 1 mM pervanadate (4 Hrs) 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>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: 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</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. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP776(2)Y
Isotype	IgG

Applications

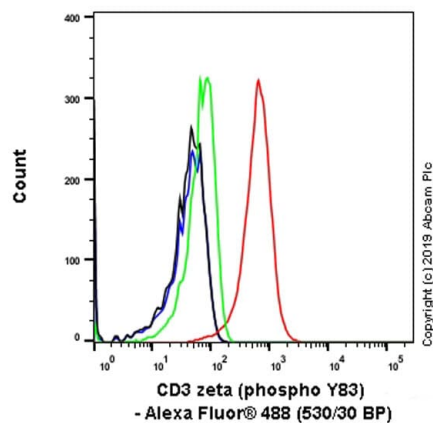
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237451 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50.
ICC/IF		1/100. This product gave a positive signal in pervanadate (1mM, 30min) treated Jurkat fixed with 4% formaldehyde (10 min).

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

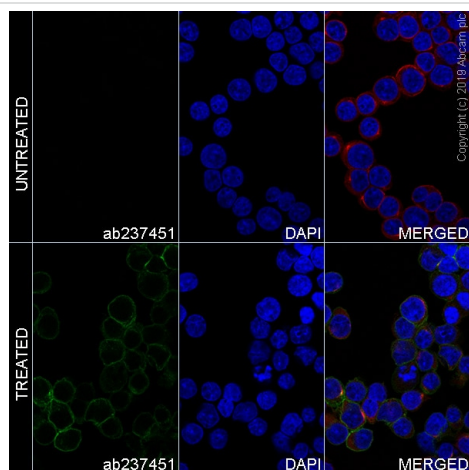


Flow Cytometry (Intracellular) - Alexa Fluor® 488
Anti-CD3 zeta (phospho Y83) antibody [EP776(2)Y]
(ab237451)

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 (ab237451, red and green lines) (1×10^6 in 100 μ l at 1/50 dilution (10 μ g/ml)) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 488 (**ab199091**) 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 20 mW Blue laser (488 nm) and 530/30 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Alexa
Fluor® 488 Anti-CD3 zeta (phospho Y83) antibody
[EP776(2)Y] (ab237451)

ab237451 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 ab237451 at 1/100 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

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

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

Alexa Fluor® 488 Anti-CD3 zeta (phospho Y83)
antibody [EP776(2)Y] (ab237451)

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

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