abcam

ab68235

Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y]

Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235) is a rabbit monoclonal antibody detecting CD3 zeta in **Western Blot, Flow Cytometry (Intra), IP, ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Trusted since 2008

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP265(2)Y
Purification technique	Affinity purification Protein A
Concentration	0.129 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human

Dilution info	1/250 - 1/500
Notes	-

IP

Tested

Species	Human
Dilution info	1/20 - 1/50
Notes	-

WB

Tested

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/120
Notes	-

Target data

See full target information CD247 pY142

Function

Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR-mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:1384049, PubMed:1385158, PubMed:2470098, PubMed:7509083). CD247/CD3Z ITAMs phosphorylation creates multiple docking sites for the protein kinase ZAP70 leading to ZAP70

phosphorylation and its conversion into a catalytically active enzyme (PubMed:7509083). Plays an important role in intrathymic T-cell differentiation. Additionally, participates in the activity-dependent synapse formation of retinal ganglion cells (RGCs) in both the retina and dorsal lateral geniculate nucleus (dLGN) (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of CD3 zeta?
Anti-CD3 zeta (phospho Y142) [EP265(2)Y] (ab68235) specifically detects a band for CD3 zeta (UniProt: P20963) at a molecular weight of 19kDa.

Trusted by the scientific community
Anti-CD3 zeta (phospho Y142) [EP265(2)Y] (ab68235) was first used in a scientific publication in 2008 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EP265(2)Y] also available for your convenience: ab68235, Carrier free - ab245765, APC - ab305801, Alexa Fluor® 488 - ab309652, Alexa Fluor® 647 - ab310016, Alexa Fluor® 594 - ab310384, Alexa Fluor® 555 - ab311910, Alexa Fluor® 568 - ab312381

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

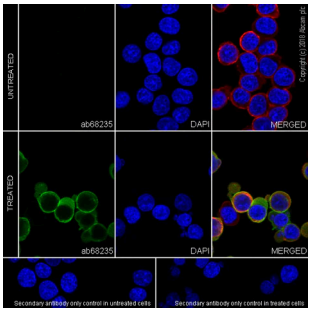
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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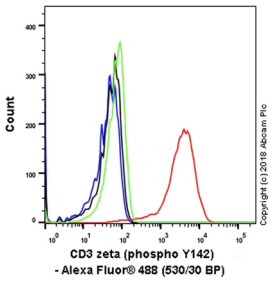
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235)

CD3 zeta (phospho Y142) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD3 zeta (phospho Y142) antibody

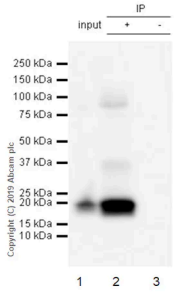
Immunocytochemistry/ Immunofluorescence analysis of Jurkat (Human T cell leukemia T lymphocyte) treated with 1mM pervanadate for 30 minutes cells labeling CD3 zeta with purified ab68235 at 1/500 dilution (0.2 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235)

CD3 zeta (phospho Y142) Flow Cytometry (Intracellular) staining using rabbit Anti-CD3 zeta (phospho Y142) antibody

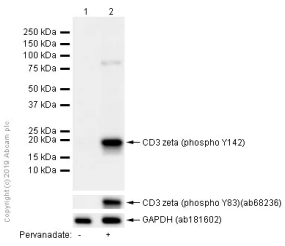
Intracellular Flow Cytometry analysis of Jurkat (Human T cell leukemia T lymphocyte) treated with 50nM pervanadate for 5 minutes cells labeling CD3 zeta with purified ab68235 at 1/120 dilution (1µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). Untreated Jurkat cells (Green).



Immunoprecipitation - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235)

ab68235 (purified) at 1/20 dilution (0.5ug) immunoprecipitating CD3 zeta in Jurkat treated with 50nM pervanadate for 5 minutes whole cell lysate whole cell lysate. Jurkat (Human T cell leukemia T lymphocyte) treated with 50nM pervanadate for 5 minutes whole cell lysate 10ug
Lane 2 (+): ab68235 & Jurkat treated with 50nM pervanadate for 5 minutes whole cell lysate whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab68235 in Jurkat treated with 50nM pervanadate for 5 minutes whole cell lysate
For western blotting, VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/2000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235)

Predicted band size: 19 kDa



Western blot - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235)

All lanes:
Western blot - Anti-CD3 zeta (phospho Y142) antibody [EP265(2)Y] (ab68235) at 1/1000 dilution

Lane 1:
Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates at 15 µg

Lane 2:
Jurkat (Human T cell leukemia T lymphocyte) treated with 50mM pervanadate for 5 minutes whole cell lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 19 kDa

Observed band size: 19 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.