abcam

Product datasheet

Anti-CD3 zeta antibody ab190728

2 References 3 Images

Overview

Product name	Anti-CD3 zeta antibody
Description	Rabbit polyclonal to CD3 zeta
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein corresponding to Human CD3 zeta aa 1 to the C-terminus. Database link: **P20963** Run BLAST with Run BLAST with
Positive control	Extracts of Jurkat cell line.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.1% Sodium azide Constituents: 50% Glycerol, 49% PBS
Purity	Immunogen affinity purified
Purification notes	ab190728 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen, and the purity is > 95% (by SDS-PAGE).
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab190728 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
WB		1/500 - 1/1000. Predicted molecular weight: 19 kDa.
ICC/IF		1/50 - 1/200.

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.

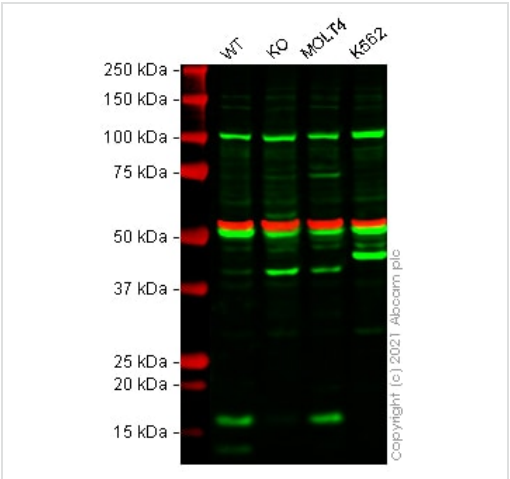
Sequence similarities Belongs to the CD3Z/FCER1G family.
Contains 3 ITAM domains.

Domain The ITAM domains mediate interaction with SHB.

Post-translational modifications Phosphorylated on Tyr residues after T-cell receptor triggering.

Cellular localization Membrane.

Images



Western blot - Anti-CD3 zeta antibody (ab190728)

All lanes : Anti-CD3 zeta antibody (ab190728) at 1/500 dilution

Lane 1 : Wild-type Jurkat cell lysate
Lane 2 : CD247 knockout Jurkat cell lysate
Lane 3 : MOLT-4 cell lysate
Lane 4 : K562 cell lysate

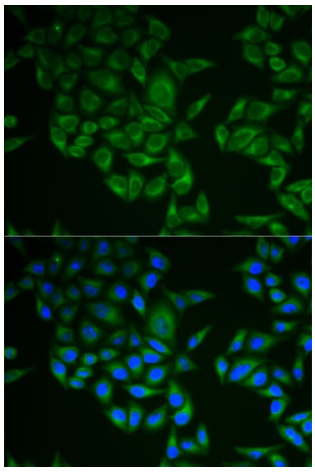
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 19 kDa
Observed band size: 16 kDa

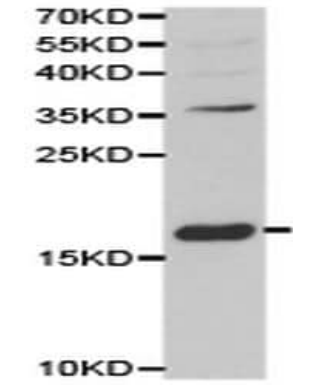
False colour image of Western blot: Anti-CD3 zeta antibody

staining at 1/500 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab190728 was shown to bind specifically to CD3 zeta. A band was observed at 16 kDa in wild-type Jurkat cell lysates with no signal observed at this size in CD247 knockout cell line **ab273856** (knockout cell lysate **ab273810**). To generate this image, wild-type and CD247 knockout Jurkat cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-CD3 zeta antibody (ab190728)

Immunofluorescence analysis of A549 cells, using CD3 Zeta polyclonal antibody at 1:50.



Western blot - Anti-CD3 zeta antibody (ab190728)

Anti-CD3 zeta antibody (ab190728) + extracts of Jurkat cell line

Predicted band size: 19 kDa

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