

Product datasheet

Anti-CD3 zeta antibody [BL-336-1B2] - BSA free ab272071

KO VALIDATED Recombinant

7 Images

Overview

Product name	Anti-CD3 zeta antibody [BL-336-1B2] - BSA free
Description	Rabbit monoclonal [BL-336-1B2] to CD3 zeta - BSA free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human CD3 zeta aa 150-164 (C terminal). The exact sequence is proprietary. NP_932170.1 and Gene ID 919. Database link: P20963
Positive control	WB: K562, Jurkat, HeLa, SR, HEK293T, HepG2 and MOLT4 whole cell lysate. IHC-P: Human tonsil tissue, human lung cancer tissue. IP: Jurkat whole cell lysate.
General notes	ab272071 is the BSA-free version of ab243874 . This product is sold under License from Bethyl Laboratories, Inc.

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	pH: 8.20 Preservative: 0.09% Sodium azide Constituent: 98% Borate buffered saline
Purification notes	Recombinant antibody was purified from cell culture supernatant.
Clonality	Monoclonal
Clone number	BL-336-1B2
Isotype	IgG

Applications

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab272071 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		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.

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.

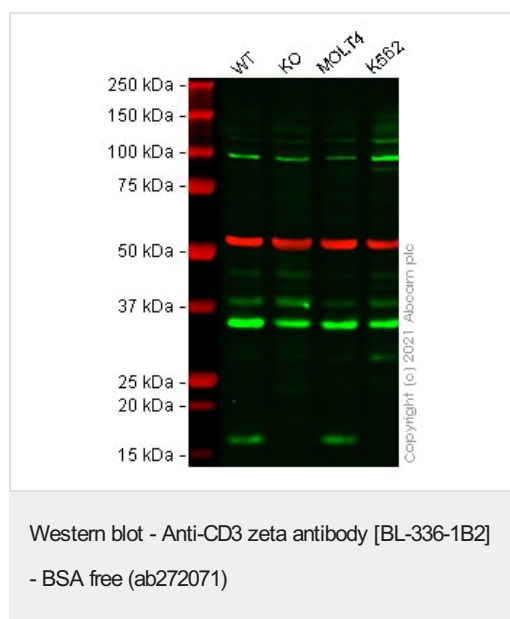
Post-translational modifications

Phosphorylated on Tyr residues after T-cell receptor triggering.

Cellular localization

Membrane.

Images



All lanes : Anti-CD3 zeta antibody [BL-336-1B2] ([ab243874](#)) at 1/1000 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

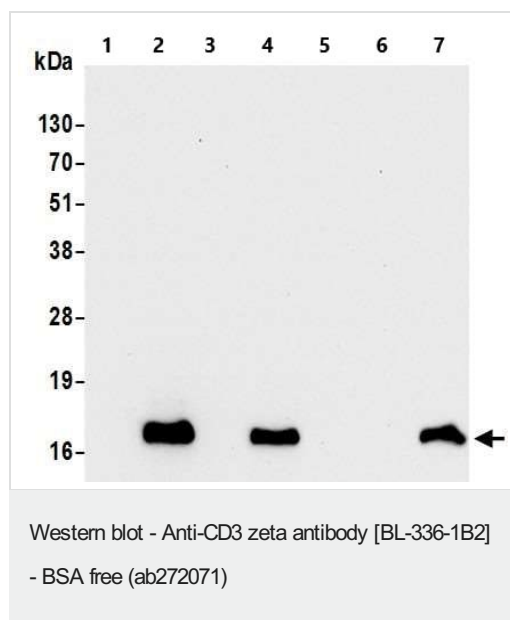
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Observed band size: 16 kDa

False colour image of Western blot: Anti-CD3 zeta antibody [BL-336-1B2] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, [ab243874](#) 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.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



All lanes : Anti-CD3 zeta antibody [BL-336-1B2] ([ab243874](#)) at 1/1000 dilution

Lane 1 : K562 whole cell lysate

Lane 2 : Jurkat whole cell lysate

Lane 3 : HeLa whole cell lysate

Lane 4 : SR whole cell lysate

Lane 5 : HEK293T whole cell lysate

Lane 6 : HepG2 whole cell lysate

Lane 7 : MOLT4 whole cell lysate

Lysates/proteins at 50 µg per lane.

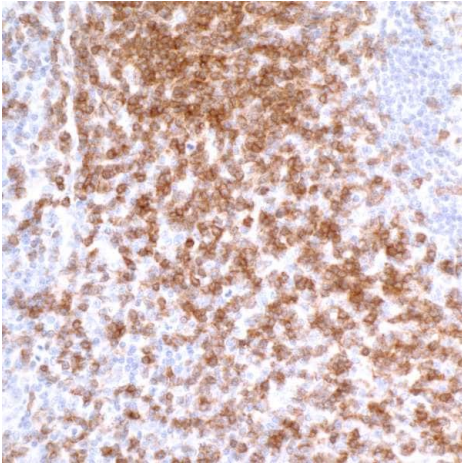
Secondary

All lanes : HRP-conjugated goat anti-rabbit IgG

Exposure time: 10 seconds

Lysates prepared using NETN lysis buffer.

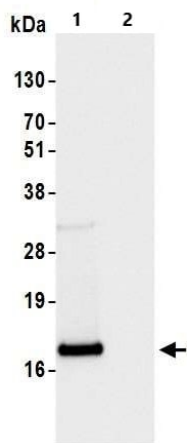
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3 zeta antibody [BL-336-1B2] - BSA free ([ab272071](#))

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue labeling CD247/CD3Z with [ab243874](#). HRP-conjugated goat anti-rabbit IgG was used as the secondary antibody, with DAB as substrate.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



Immunoprecipitation - Anti-CD3 zeta antibody [BL-336-1B2] - BSA free ([ab272071](#))

CD247/CD3Z was immunoprecipitated from 1mg of Jurkat whole cell lysate with [ab243874](#) at 20 μ l/mg lysate. Western blot was performed from the immunoprecipitate using [ab264158](#) at a 1/1000 dilution.

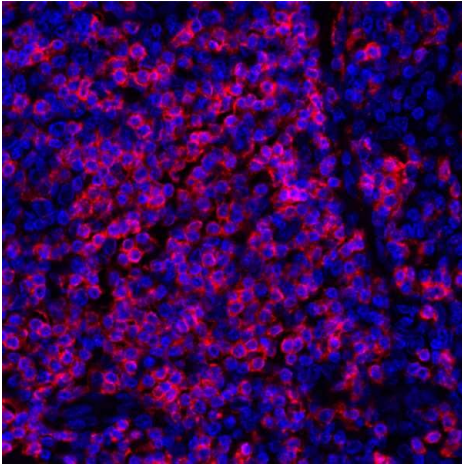
Lane 1: [ab243874](#) IP in Jurkat whole cell lysate.

Lane 2: Control IgG.

Detection: Chemiluminescence.

Lysate prepared using NETN lysis buffer.

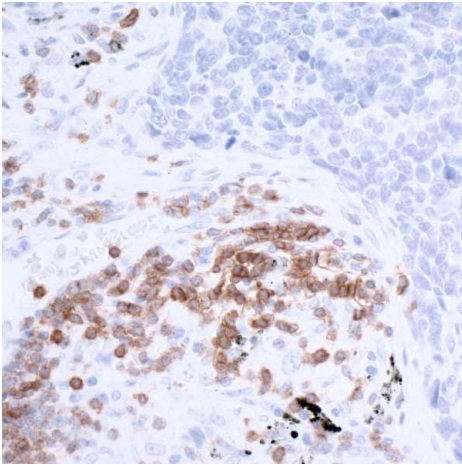
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3 zeta antibody [BL-336-1B2] - BSA free (ab272071)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue, labeling CD247/CD3Z with [ab243874](#). HRP-conjugated goat anti-rabbit IgG used as the secondary antibody. DAPI counterstain.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3 zeta antibody [BL-336-1B2] - BSA free (ab272071)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human lung cancer tissue labeling CD247/CD3Z with [ab243874](#). HRP-conjugated goat anti-rabbit IgG was used as the secondary antibody, with DAB as the substrate.

This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).

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-CD3 zeta antibody [BL-336-1B2] - BSA free
(ab272071)

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