

## Product datasheet

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

KO VALIDATED

Recombinant

7 Images

### Overview

<b>Product name</b>	Anti-CD3 zeta antibody [BL-336-1B2] - BSA free
<b>Description</b>	Rabbit monoclonal [BL-336-1B2] to CD3 zeta - BSA free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	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: <a href="#">P20963</a>
<b>Positive control</b>	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.
<b>General notes</b>	ab272071 is the BSA-free version of <a href="#">ab243874</a> .  This product is sold under License from Bethyl Laboratories, Inc.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 8.20 Preservative: 0.09% Sodium azide Constituent: 98% Borate buffered saline
<b>Purification notes</b>	Recombinant antibody was purified from cell culture supernatant.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	BL-336-1B2
<b>Isotype</b>	IgG

### Applications

## Applications

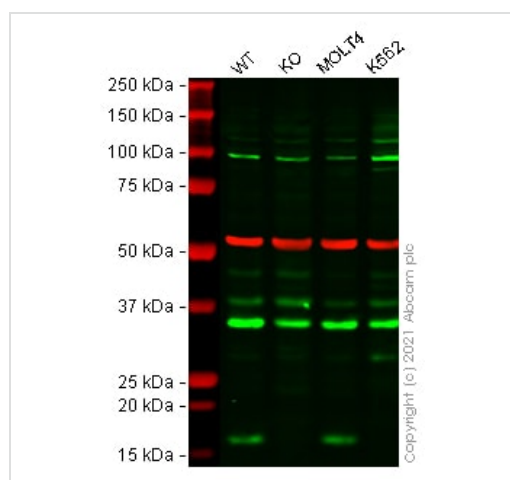
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab272071 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

<b>Function</b>	Probable role in assembly and expression of the TCR complex as well as signal transduction upon antigen triggering.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the CD3Z/FCER1G family. Contains 3 ITAM domains.
<b>Domain</b>	The ITAM domains mediate interaction with SHB.
<b>Post-translational modifications</b>	Phosphorylated on Tyr residues after T-cell receptor triggering.
<b>Cellular localization</b>	Membrane.

## Images



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

**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

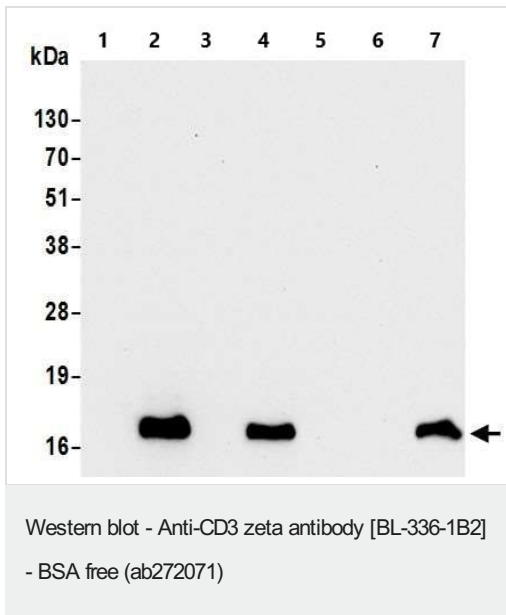
Lysates/proteins at 20 µg per lane.

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<sup>®</sup> 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<sup>®</sup> 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 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.

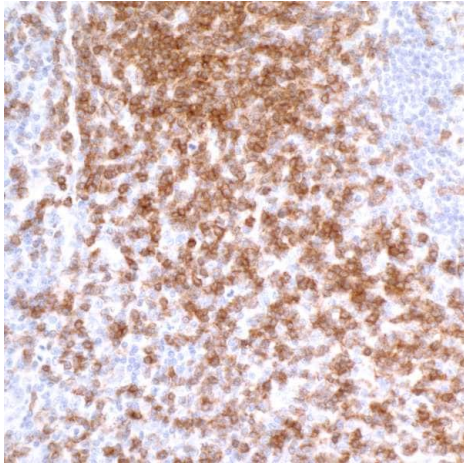
**Secondary**

**All lanes :** HRP-conjugated goat anti-rabbit IgG

**Exposure time:** 10 seconds

Lysates prepared using NETN lysis buffer.

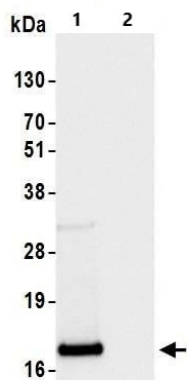
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



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

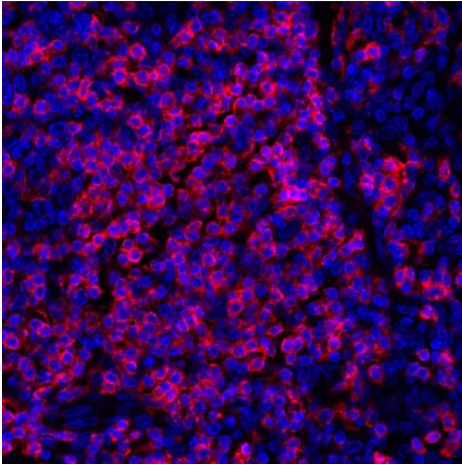
**Lane 1:** [ab243874](#) IP in Jurkat whole cell lysate.

**Lane 2:** Control IgG.

**Detection:** Chemiluminescence.

Lysate prepared using NETN lysis buffer.

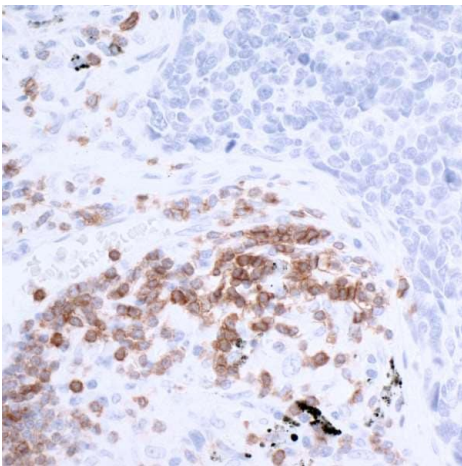
This data was developed using the same antibody clone in a different buffer formulation containing Borate buffered saline, BSA, glycerol and sodium azide ([ab243874](#)).



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)

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

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