abcam

Product datasheet

# Anti-CD3D antibody [EPR20544] - BSA and Azide free ab229280

Recombinant RabMAb

7 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-CD3D antibody [EPR20544] - BSA and Azide free |
| **Description** | Rabbit monoclonal [EPR20544] to CD3D - BSA and Azide free |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** WB, IHC-Fr, IP, Flow Cyt, IHC-P |
| **Species reactivity** | **Reacts with:** Mouse |
| **Immunogen** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **Positive control** | WB: Mouse thymus and lymph node lysates. IHC-P: Mouse spleen and thymus tissues. IHC-Fr: Mouse spleen tissue. Flow Cyt: Mouse spleen cells. IP: Mouse thymus lysate. |
| **General notes** | ab229280 is the carrier-free version of **ab213362**.<br><br>Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.<br><br>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.<br><br>Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.<br><br>This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br><br>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. |

## Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **Storage buffer** | pH: 7.2<br>Constituent: PBS |
| **Carrier free** | Yes |
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | EPR20544 |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab229280 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

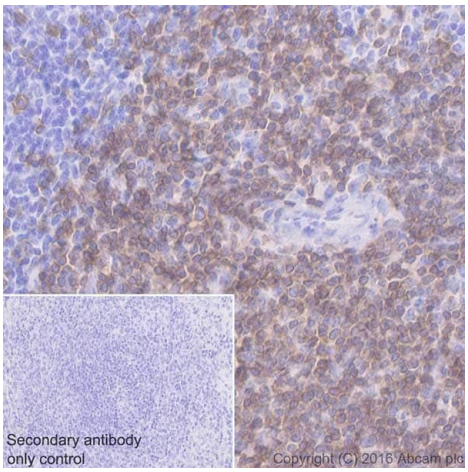
| Application | Abreviews | Notes |
|---|---|---|
| **WB** | | Use at an assay dependent concentration. Detects a band of approximately 24 kDa (predicted molecular weight: 19 kDa). |
| **IHC-Fr** | | Use at an assay dependent concentration.<br>Antigen retrieval: Heated citrate solution (10mM citrate pH 6.0 + 0.05% Tween-20). |
| **IP** | | Use at an assay dependent concentration. |
| **Flow Cyt** | | Use at an assay dependent concentration. |
| **IHC-P** | | Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |

## Target

| | |
|---|---|
| **Function** | The CD3 complex mediates signal transduction. |
| **Involvement in disease** | Defects in CD3D are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)/B(+)/NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. |
| **Sequence similarities** | Contains 1 ITAM domain. |
| **Cellular localization** | Membrane. |

**Form** .

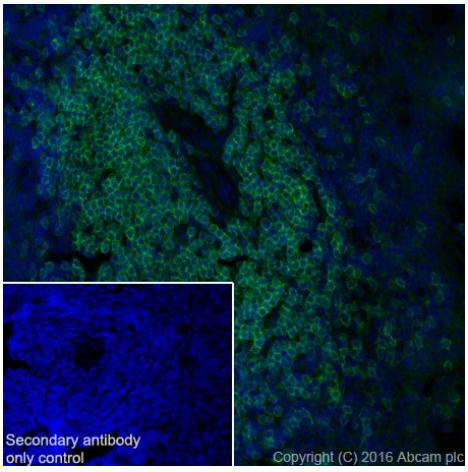
## Images




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

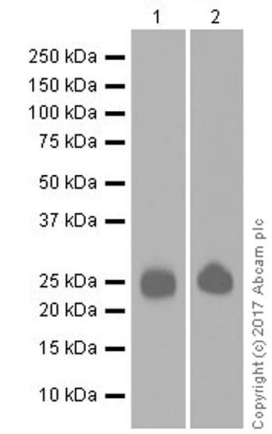
This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD3D with **ab213362** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on T cells of mouse splenic periarterial lymphatic sheath is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




Immunohistochemistry (Frozen sections) - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse spleen tissue labeling CD3D with **ab213362** at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Cytoplasmic and membranous staining on mouse splenic periarterial lymphatic sheath is observed. The nuclear counterstain is DAPI (blue). Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.




Western blot - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

**All lanes :** Anti-CD3D antibody [EPR20544] (**ab213362**) at 1/1000 dilution

**Lane 1 :** Mouse thymus tissue lysate
**Lane 2 :** Mouse lymph node tissue lysate

Lysates/proteins at 20 µg per lane.

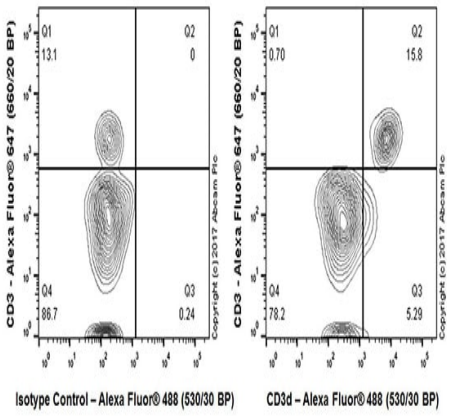
**Secondary**
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

**Predicted band size:** 19 kDa
**Observed band size:** 24 kDa

This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.

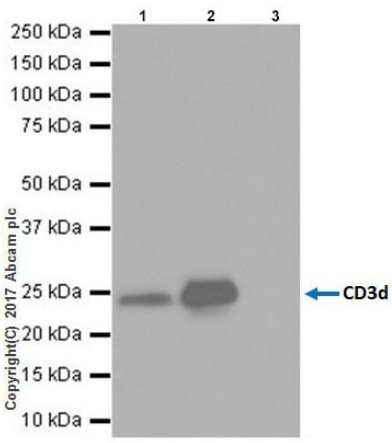
**Blocking and dilution buffer:** 5% NFDM/TBST.

**Exposure times:** Lane 1: 15 seconds; Lane 2: 3 minutes.




Flow Cytometry - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.Flow cytometric analysis of mouse spleen cells labeling CD3D with **ab213362** at 1/600 dilution (right panel), compared with a rabbit monoclonal IgG isotype control (**ab172730**) (left panel). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody. Firstly, cells surface was stained with anti-mouse CD3 Alexa Fluor 647 (Y axis), then cells were fixed with 4% PFA followed by intracellular staining with **ab213362**. The same population of cells were stained by both: anti-mouse CD3 and anti-mouse CD3D (**ab213362**) antibodies.




Immunoprecipitation - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.

CD3D was immunoprecipitated from 0.35 mg of mouse thymus lysate with **ab213362** at 1/30 dilution.

Western blot was performed from the immunoprecipitate using **ab213362** at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution.

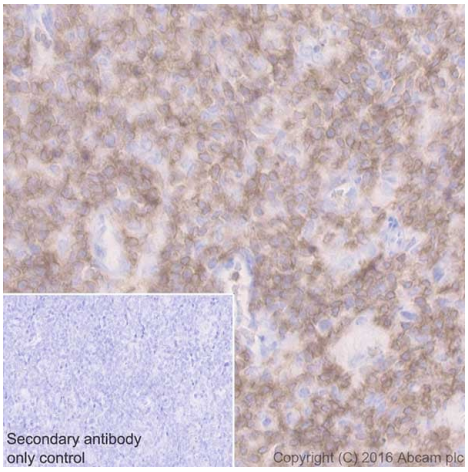
**Lane 1:** Mouse thymus lysate, 10 µg (Input).

**Lane 2:** **ab213362** IP in mouse thymus lysate.

**Lane 3:** Rabbit monoclonal IgG (**ab172730**) instead of **ab213362** in mouse thymus lysate .

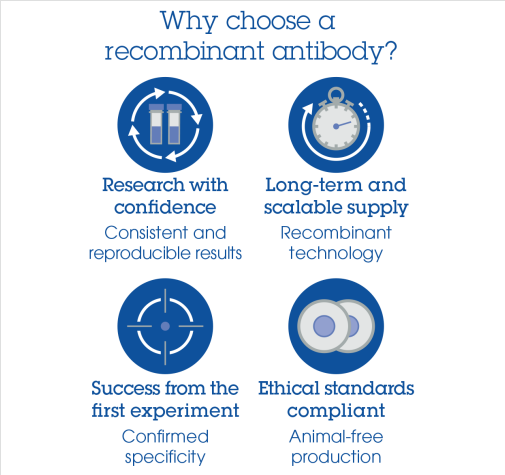
**Blocking and dilution buffer:** 5% NFDM/TBST.

**Exposure time:** 10 seconds.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

This data was developed using **ab213362**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded mouse thymus tissue labeling CD3D with **ab213362** at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic and membranous staining on T cells of mouse thymus medulla is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




Anti-CD3D antibody [EPR20544] - BSA and Azide free (ab229280)

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

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