

# Anti-CD4 antibody [EPR20122] - BSA and Azide free ab251480

Recombinant RabMAb

5 Images

### Overview

Product name	Anti-CD4 antibody [EPR20122] - BSA and Azide free
Description	Rabbit monoclonal [EPR20122] to CD4 - BSA and Azide free
Host species	Rabbit
Tested applications	<b>Suitable for:</b> Flow Cyt, WB, IP
Species reactivity	<b>Reacts with:</b> Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow cyt: C57 BL/6 mouse thymocytes
General notes	<p>ab251480 is the carrier-free version of <a href="#">ab207755</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <a href="#">conjugation kits</a> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

## Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20122
Isotype	IgG

## Applications

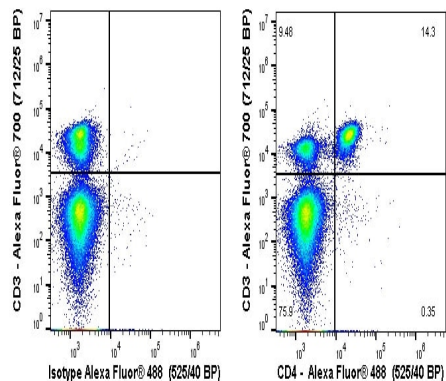
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab251480 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 51 kDa (predicted molecular weight: 51 kDa).
IP		Use at an assay dependent concentration.

## Target

Function	Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts.
Sequence similarities	Contains 3 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Post-translational modifications	Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts.
Cellular localization	Cell membrane. Localizes to lipid rafts. Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope glycoprotein gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum.

## Images



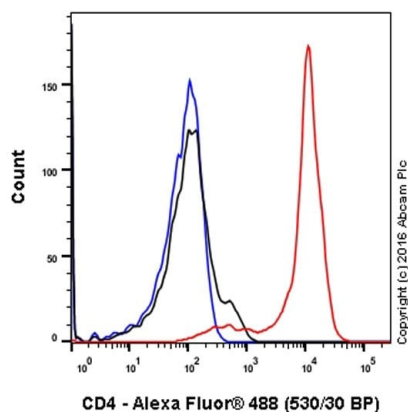
Flow Cytometry - Anti-CD4 antibody [EPR20122] - BSA and Azide free (ab251480)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab207755](#)).

Flow cytometry staining of C57 BL/6 mouse splenocytes with [ab207755](#) (right) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (left). Cells were incubated for 30 min on ice in 1x PBS containing 10µg/ml anti CD16/CD32 and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody [ab207755](#) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (1x 10<sup>6</sup> in 100 µl at 0.2 µg/ml (1/10200)) for 30min on ice. The cells were simultaneously stained with CD3.

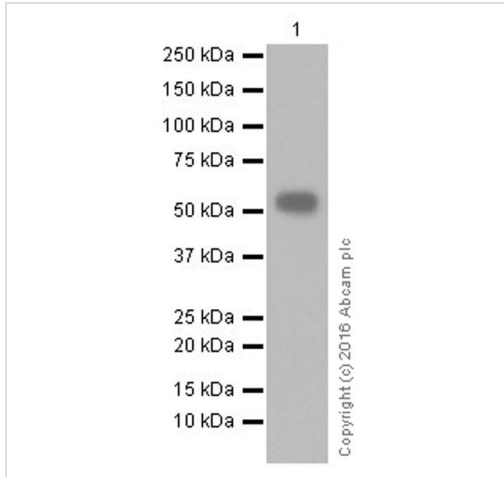
The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min on ice

Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on viable cells.



Flow Cytometry - Anti-CD4 antibody [EPR20122] - BSA and Azide free (ab251480)

This data was developed using [ab207755](#), the same antibody clone in a different buffer formulation. Flow cytometric analysis of Mouse thymocytes labeling CD4 with [ab207755](#) at 1/60 dilution (red), compared with [ab172730](#) (Rabbit IgG, monoclonal [EPR25A] - Isotype Control) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-CD4 antibody [EPR20122] - BSA and Azide free (ab251480)

Anti-CD4 antibody [EPR20122] ([ab207755](#)) at 1/5000 dilution + Mouse thymus tissue lysate at 10 µg

### Secondary

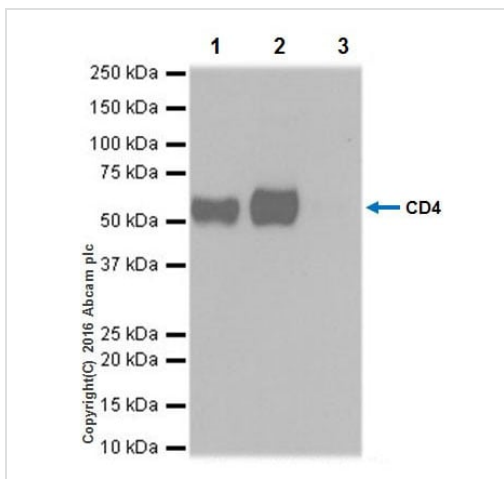
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

**Predicted band size:** 51 kDa

**Exposure time:** 5 seconds

This data was developed using [ab207755](#), the same antibody clone in a different buffer formulation.

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



Immunoprecipitation - Anti-CD4 antibody [EPR20122] - BSA and Azide free (ab251480)

This data was developed using [ab207755](#), the same antibody clone in a different buffer formulation. CD4 was immunoprecipitated from 0.35 mg of Mouse thymus lysate with [ab207755](#) at 1/30 dilution. Western blot was performed from the immunoprecipitate using [ab207755](#) at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/1000 dilution. Lane 1: Mouse thymus lysate, 10 µg (Input). Lane 2: [ab207755](#) IP in Mouse thymus lysate. Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of [ab207755](#) in Mouse thymus lysate. Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 3 seconds.

### 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

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

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