

Product datasheet

Anti-CD4 antibody [CAL4] ab237722

Recombinant **RabMAb**

★★★★★ [1 Abreviews](#) [11 References](#) [8 Images](#)

Overview

Product name	Anti-CD4 antibody [CAL4]
Description	Rabbit monoclonal [CAL4] to CD4
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-Fr, IP, Flow Cyt (Intra), IHC-P Unsuitable for: ICC/IF
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Synthetic peptide within Mouse CD4 aa 417-457. The exact sequence is proprietary. Database link: P06332
Positive control	IHC-P: Mouse and rat spleen tissue. WB: Mouse and rat thymus, spleen and lymph node lysate. IHC-Fr: Mouse spleen tissue. Flow Cyt (intra): Mouse splenocytes. IP: Mouse thymus lysate.

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: 7.2 Preservative: 0.05% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	Purity >99%.
Clonality	Monoclonal
Clone number	CAL4
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237722 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		1/1000. Predicted molecular weight: 51 kDa.
IHC-Fr		1/100. Perform heat mediated antigen retrieval using sodium citrate buffer (10 mM citrate pH 6.0 and 0.05% Tween-20).
IP		1/30.
Flow Cyt (Intra)		1/40.
IHC-P	★★★★★ (1)	1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes

Is unsuitable for ICC/IF.

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.

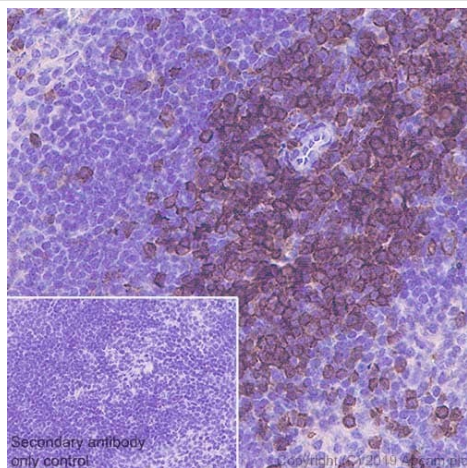
Post-translational modifications

Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts.

Cellular localization

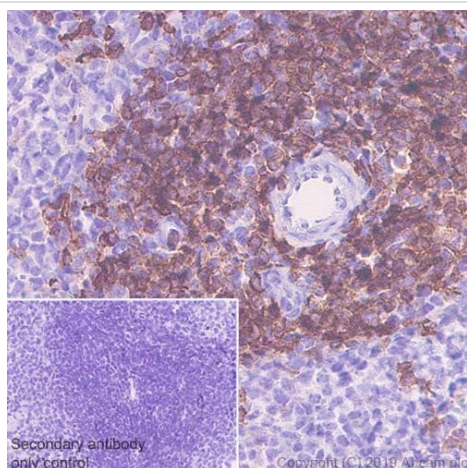
Cell membrane. Localizes to lipid rafts. Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polypeptide gp160 that interacts with, and sequesters CD4 in the endoplasmic reticulum.

Images



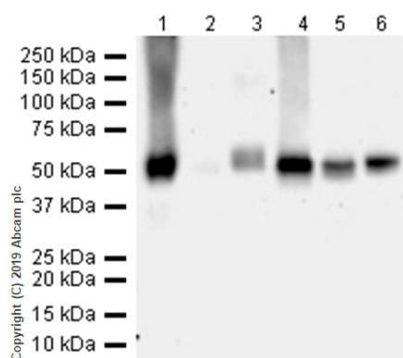
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [CAL4] (ab237722)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD4 with ab237722 at 1/4000 dilution, followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on mouse spleen. The section was incubated with ab237722 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [CAL4] (ab237722)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling CD4 with ab237722 at 1/4000 dilution, followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on rat spleen. The section was incubated with ab237722 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Western blot - Anti-CD4 antibody [CAL4] (ab237722)

All lanes : Anti-CD4 antibody [CAL4] (ab237722) at 1/1000 dilution

Lane 1 : Mouse thymus lysate

Lane 2 : Mouse spleen lysate

Lane 3 : Mouse lymph node lysate

Lane 4 : Rat thymus lysate

Lane 5 : Rat spleen lysate

Lane 6 : Rat lymph node lysate

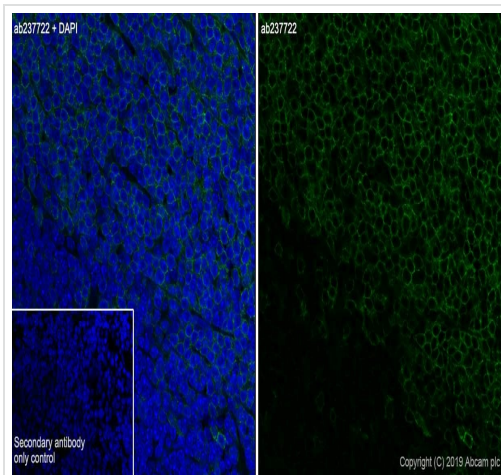
Lysates/proteins at 20 µg per lane.

Secondary

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

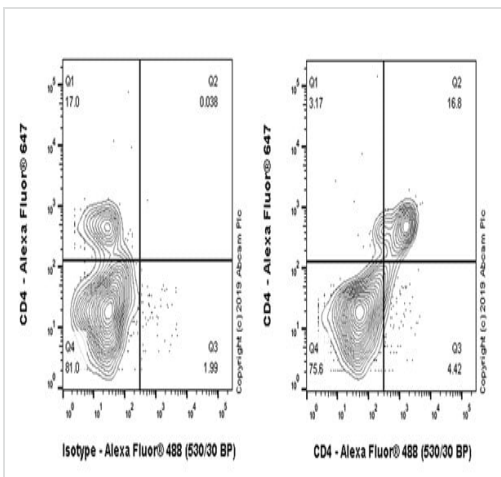
Predicted band size: 51 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Frozen sections) - Anti-CD4 antibody [CAL4] (ab237722)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse spleen tissue labeling CD4 with ab237722 at 1/100 dilution (green), followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at a 1/1,000 dilution. Positive staining on T cell surface (PMID: 26994219) is observed. Counterstained with DAPI (blue). Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit used at a 1/1,000 dilution. Heat mediated antigen retrieval using sodium citrate buffer (10 mM citrate pH 6.0 and 0.05% Tween-20).



Flow Cytometry (Intracellular) - Anti-CD4 antibody [CAL4] (ab237722)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed, 0.1% Tween-20 permeabilized mouse splenocytes labeling CD4 with ab237722 at 1/40 (right panel) compared with a Rabbit monoclonal IgG (**ab172730**) (left panel). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody. Cells were surface stained with anti-CD4 conjugated to Alexa Fluor® 647. Then fixed with 2% PFA for 10min and intracellularly stained with rabbit IgG (Left) or ab237722 (Right). They recognize the same cell population.



Immunoprecipitation - Anti-CD4 antibody [CAL4]
(ab237722)

CD4 was immunoprecipitated from 0.35 mg mouse thymus lysate with ab237722 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab237722 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used at 1/5000 dilution.

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

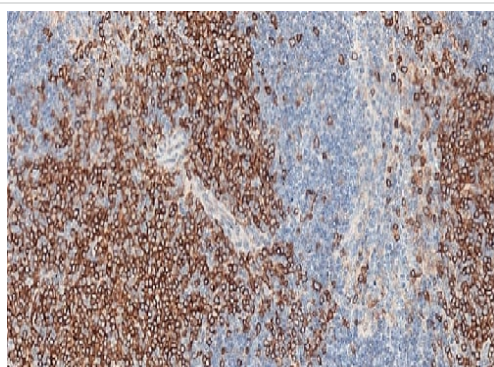
Lane 2: ab237722 IP in mouse thymus lysate .

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab237722 in mouse thymus lysate .

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure time: 30 seconds.

102kDa band represents CD4 dimer based on literature. (PMID: 20739067).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [CAL4]
(ab237722)

Formalin-fixed, paraffin-embedded mouse spleen tissue stained for CD4 using ab237722 at 0.5 µg/ml in immunohistochemical analysis.

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-CD4 antibody [CAL4] (ab237722)

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

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