abcam

Product datasheet

Anti-CD4 antibody [CAL4] ab237722

重组 RabMAb

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概述

产品名称	Anti-CD4抗体[CAL4]
描述	兔单克隆抗体[CAL4] to CD4
宿主	Rabbit
经测试应用	**适用于:** WB, IHC-Fr, IP, Flow Cyt (Intra), IHC-P **不适用于:** ICC/IF
种属反应性	**与反应:** Mouse, Rat
免疫原	Synthetic peptide within Mouse CD4 aa 417-457. The exact sequence is proprietary. Database link: **P06332**
阳性对照	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.

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.2 Preservative: 0.05% Sodium azide Constituent: PBS
纯度	Protein A purified
纯化说明	Purity >99%.
克隆	单克隆
克隆编号	CAL4
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab237722于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
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.

应用说明 Is unsuitable for ICC/IF.

靶标

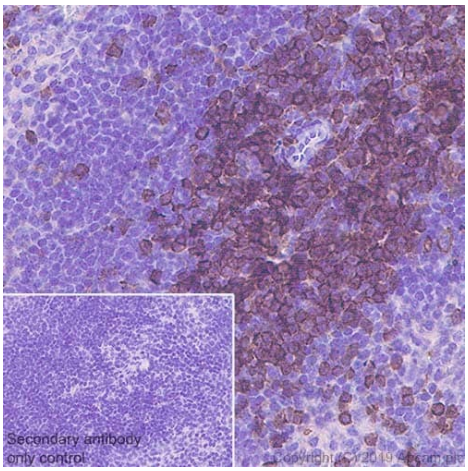
功能 Accessory protein for MHC class-II antigen/T-cell receptor interaction. May regulate T-cell activation. Induces the aggregation of lipid rafts.

序列相似性 Contains 3 Ig-like C2-type (immunoglobulin-like) domains.
Contains 1 Ig-like V-type (immunoglobulin-like) domain.

翻译后修饰 Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts.

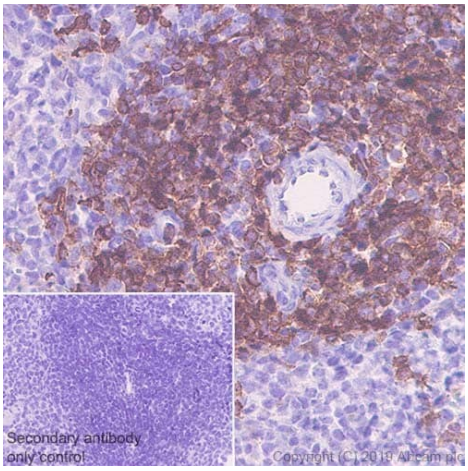
细胞定位 Cell membrane. Localizes to lipid rafts. Removed from plasma membrane by HIV-1 Nef protein that increases clathrin-dependent endocytosis of this antigen to target it to lysosomal degradation. Cell surface expression is also down-modulated by HIV-1 Envelope polyprotein gp160 that interacts with,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

图片



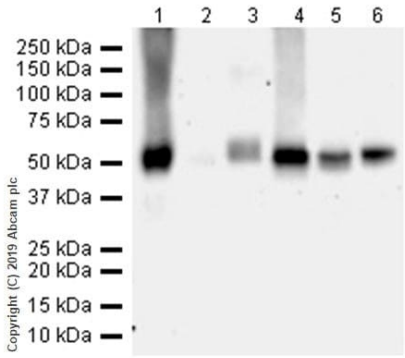
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD4 antibody [CAL4] (ab237722)

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

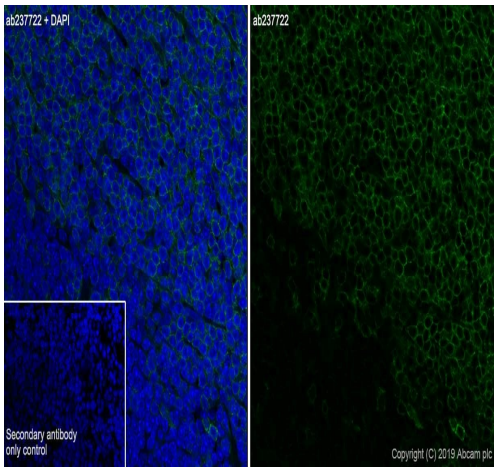
Lane 1 : Mouse thymus lysate
Lane 2 : Mouse spleen lysate
Lane 3 : Mouse lymph node lysate
Lane 4 : Rat thymus lysate
Lane 5 : Rat spleen lysate
Lane 6 : Rat lymph node lysate

Lysates/proteins at 20 µg per lane.

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

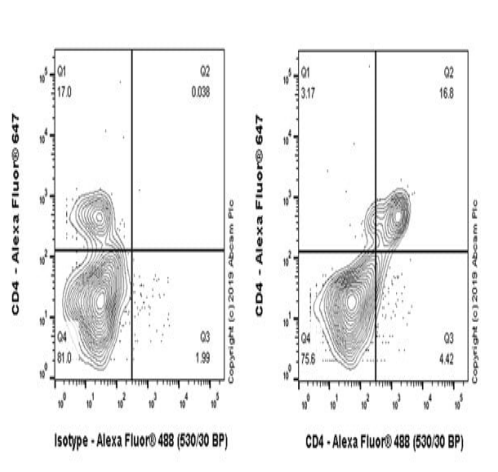
Predicted band size: 51 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



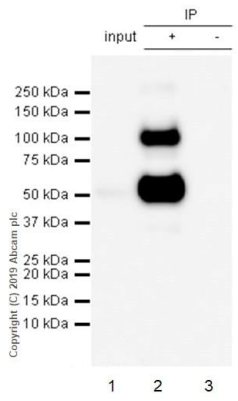
Immunohistochemistry (Frozen sections) - Anti-CD4 antibody [CAL4] (ab237722)

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).

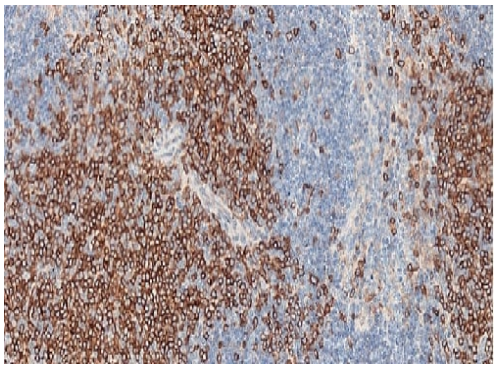
Lane 2: ab237722 IP in mouse thymus lysate .

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.

Anti-CD4 antibody [CAL4] (ab237722)

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