



Datasheet for ABIN671376  
**anti-CD4 antibody (AA 385-457)**



[Go to Product page](#)

1 Validation

7 Images

4 Publications

## Overview

Quantity:	100 µL
Target:	CD4
Binding Specificity:	AA 385-457
Reactivity:	Human, Mouse, Rat, Chicken, Pig
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CD4 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), ELISA, Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p))

## Product Details

Immunogen:	KLH conjugated synthetic peptide derived from Human CD4 (cytoplasmic domain)
Isotype:	IgG
Cross-Reactivity:	Chicken, Human, Mouse, Pig, Rat
Predicted Reactivity:	Dog,Cow,Sheep,Guinea Pig
Purification:	Purified by Protein A.

## Target Details

Target:	CD4
---------	-----

## Target Details

---

Alternative Name: [CD4 \(CD4 Products\)](#)

Background: Synonyms: T-cell surface glycoprotein CD4, Cd4, T-cell surface antigen T4/Leu-3, W3/25 antigen

Background: Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex. The antigens presented by class II peptides are derived from extracellular proteins while class I peptides are derived from cytosolic proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class II presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. LCK then initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of T-helper cells. In other cells such as macrophages or NK cells, plays a role in differentiation/activation, cytokine expression and cell migration in a TCR/LCK-independent pathway. Participates in the development of T-helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages.

Gene ID: 24932

UniProt: [P01730](#)

Pathways: [TCR Signaling](#), [Maintenance of Protein Location](#), [CXCR4-mediated Signaling Events](#)

## Application Details

---

Application Notes: WB 1:300-5000  
ELISA 1:500-1000  
FCM 1:20-100  
IHC-P 1:200-400  
IHC-F 1:100-500  
IF(IHC-P) 1:50-200  
IF(IHC-F) 1:50-200  
IF(ICC) 1:50-200

Restrictions: For Research Use only

## Handling

---

Format: Liquid

## Handling

---

Concentration:	1 µg/µL
Buffer:	0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

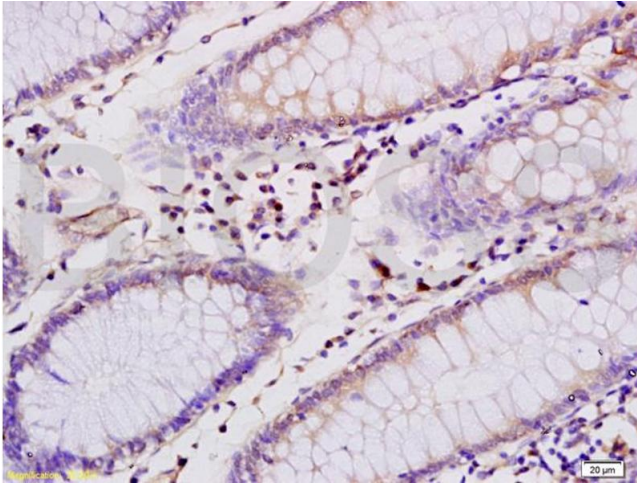
## Publications

---

Product cited in: Jaime-Ramirez, Yu, Caserta, Yoo, Zhang, Lee, Hofmeister, Lee, Kumar, Pan, Kumar, Baiocchi, Teknos, Pichiorri, Kaur, Old: "Reolysin and Histone Deacetylase Inhibition in the Treatment of Head and Neck Squamous Cell Carcinoma." in: **Molecular therapy oncolytics**, Vol. 5, pp. 87-96, (2017) ([PubMed](#)).

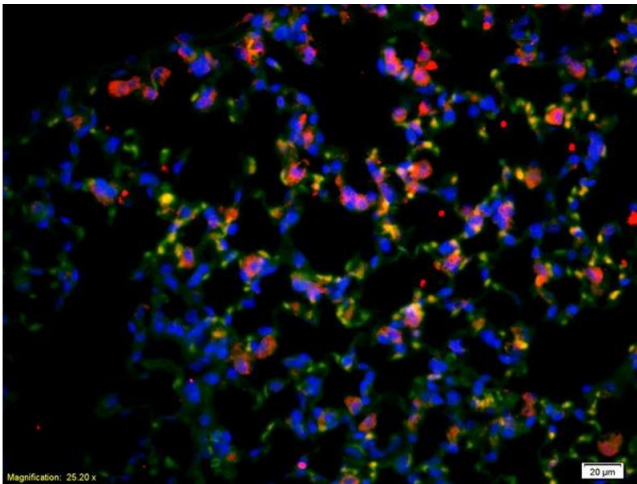
Zhang, Fu, Li, Wang, Zhang, Liu: "Bone morphogenetic protein 7 is associated with the nodal invasion of colon cancer." in: **Oncology letters**, Vol. 11, Issue 3, pp. 1707-1712, (2016) ([PubMed](#)).

Smit, Bester, van den Heever, Schlegel, Botes, Dohmen: "Does prolonged post-mortem cold ischemic harvesting time influence cryopreserved pulmonary homograft tissue integrity?" in: **Cell and tissue banking**, (2015) ([PubMed](#)).



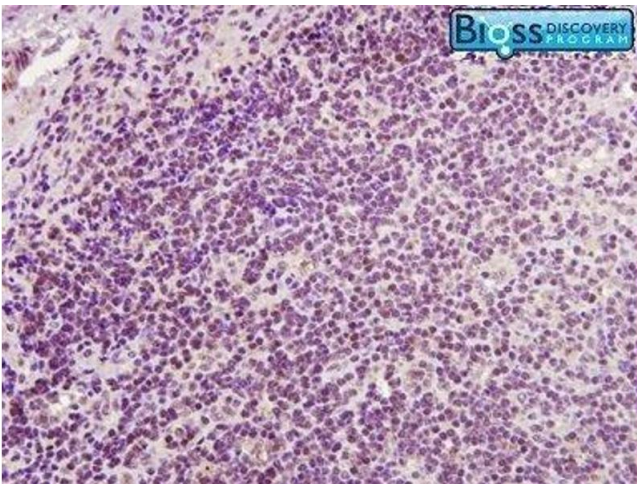
### Immunohistochemistry

**Image 1.** Formalin-fixed and paraffin embedded human colon carcinoma labeled Anti-CD4 Polyclonal Antibody, Unconjugated (ABIN671376) at 1:200, followed by conjugation to the secondary antibody and DAB staining



### Immunofluorescence

**Image 2.** Formalin-fixed and paraffin-embedded rat lung labeled with Anti-CD4 Polyclonal Antibody, Unconjugated (ABIN671376) 1:200, overnight at 4°C, The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated used at 1:200 dilution for 40 minutes at 37°C.



### Immunohistochemistry (Paraffin-embedded Sections)

**Image 3.** Image was kindly submitted by Dr. David M Burmeister from US Army Institute of Surgical Research. Pig lymph nodes stained with Rabbit Anti-CD4 Polyclonal Antibody at 1:300 for one hour at room temperature.

Please check the [product details page](#) for more images. Overall 7 images are available for ABIN671376.



### Successfully validated (Immunohistochemistry (IHC))

by [Confocal Imaging Core, Beth Israel Deaconess Medical Center](#)

Report Number: 029634

Date: Mar 26 2014

Lot Number: 130703

Method validated: Immunohistochemistry (IHC)

Positive Control: [Mouse spleen tissue](#)

Negative Control: Mouse muscle tissue

Notes: Signal was detected in positive control sample and not in negative control sample.

Primary Antibody: - Antibody: CD4 Molecule (CD4) - Catalog number: ABIN671376 - Supplier: Bioss - Supplier catalog number: bs-0647R - Lot number: 130703

Secondary Antibody: - Antibody: Donkey anti-Rabbit IgG Antibody (Biotinylated) - Supplier: Jackson ImmunoResearch - Catalog number: 711-065-152

Isotype: - Antibody: Rabbit IgG isotype control - Supplier: Bioss - Catalog number: bs-0295P - Lot number: YYDW72P

Controls:

- Positive control: Spleen tissue (specimen known to contain the target protein) from mouse.
- Negative Control: Muscle tissue (specimen known to not contain the target protein) from mouse.
- Primary antibody isotype control: Mouse spleen treated with primary antibody isotype control instead of the primary antibody.
- Secondary antibody only control: Mouse spleen treated with secondary antibody only (no primary antibody).

Protocol:

- Immunohistochemistry was performed manually.
- Sections were deparaffinized and rehydrated.
- Sections were heated to 98°C for 10 min in 0.1M Borate buffer with 1 mM NaCl and 1 mM EDTA pH 8.0 for antigen retrieval.
- Sections were incubated in 3% hydrogen peroxide for 10 min at room temperature to block endogenous peroxidases.
- Sections were washed x 3 in Tris buffered saline (TBS).
- Sections were blocked in 5 % normal donkey serum for 60 min at room temperature.
- Sections were incubated with primary antibody diluted 1:200 in 5% normal donkey serum in TBS. Incubated at 4°C temperature overnight.

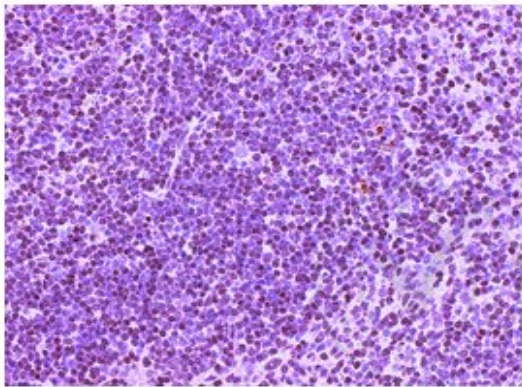
- Sections were washed x 3 in Tris buffered saline.
- Sections were incubated with secondary antibody diluted 1:400 in 5% normal donkey serum in TBS. Incubated for 60 min at room temperature..
- Sections were washed x 3 in Tris buffered saline.
- Sections were incubated with Vectastain ABC kit (Vector Lab PK6100) to enhance signal.
- Sections were incubated with DAB chromogenic substrate (Vector Lab SK-4105) for 60 sec at RT.
- Sections were washed x 3 in Distilled Water.
- Sections were counterstained with hematoxylin for 20 sec.
- Sections were washed x 1 in Distilled Water.
- Sections were dehydrated, mounted and photographed under a Zeiss Axiomager M1 light microscope.

Experimental Notes: - No experimental challenges noted.

---

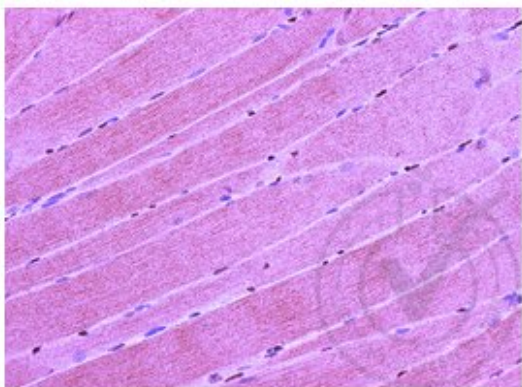
## Images for Validation report #029634

---



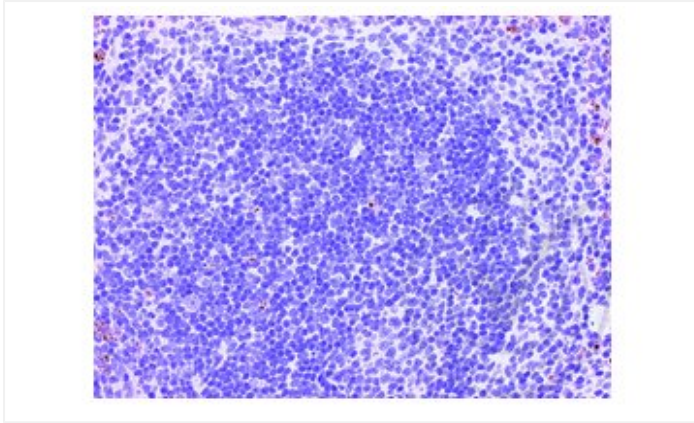
**Validation image no. 1 for anti-CD4 (CD4) (AA 385-457) antibody (ABIN671376)**

Figure 1: Mouse spleen stained with anti-CD4 (brown) and counterstained with hematoxylin.



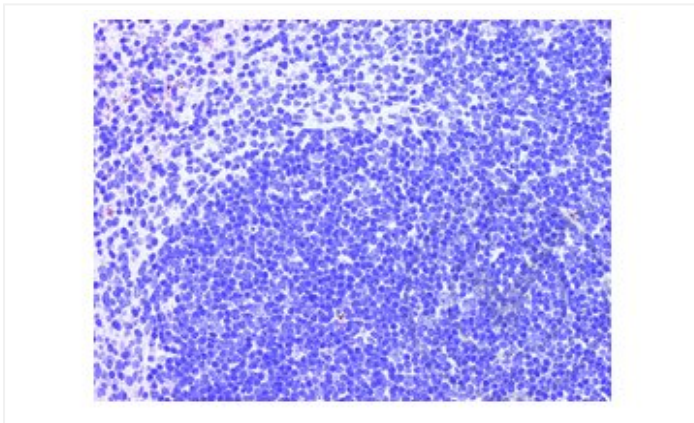
**Validation image no. 2 for anti-CD4 (CD4) (AA 385-457) antibody (ABIN671376)**

Figure 2: Mouse muscle stained with anti-CD4 (brown) and counterstained with hematoxylin.



**Validation image no. 3 for anti-CD4 (CD4) (AA 385-457) antibody (ABIN671376)**

Figure 3: Mouse spleen stained with isotype control antibody (brown) and counterstained with hematoxylin.



**Validation image no. 4 for anti-CD4 (CD4) (AA 385-457) antibody (ABIN671376)**

Figure 4: Mouse spleen stained with secondary antibody only (brown) and counterstained with hematoxylin.