# abcam

# Product datasheet

# Anti-CD11b antibody [EPR19387] ab184308

Recombinant RabMAb

★★★★★ 1 Abreviews 12 References 5 Images

#### Overview

**Product name** Anti-CD11b antibody [EPR19387]

**Description** Rabbit monoclonal [EPR19387] to CD11b

**Host species** Rabbit

**Tested applications** Suitable for: WB, ICC/IF, IP, Flow Cyt

Species reactivity Reacts with: Mouse, Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: J774A.1, M1 and RAW 264.7 whole cell lysates. ICC/IF: RAW 264.7 cells. Flow Cyt: RAW

264.7 cells. IP: RAW 264.7 whole cell lysate.

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information **see here**.

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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

**Purity** Protein A purified

Clonality Monoclonal Clone number EPR19387

Isotype ΙgG

#### **Applications**

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab184308 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. Detects a band of approximately 170 kDa (predicted molecular weight: 127 kDa).
ICC/IF	<b>★★★★</b> <u>(1)</u>	1/500.
IP		1/40.
Flow Cyt		1/70.

## **Target**

**Function** 

Integrin alpha-M/beta-2 is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake of complement-coated particles. It is identical with CR-3, the receptor for the iC3b fragment of the third complement component. It probably recognizes the R-G-D peptide in C3b. Integrin alpha-M/beta-2 is also a receptor for fibrinogen, factor X and ICAM1. It recognizes P1 and P2 peptides of fibrinogen gamma chain.

Tissue specificity

Predominantly expressed in monocytes and granulocytes.

Involvement in disease

Genetic variations in ITGAM has been associated with susceptibility to systemic lupus erythematosus type 6 (SLEB6) [MIM:609939]. Systemic lupus erythematosus (SLE) is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system.

Sequence similarities

Belongs to the integrin alpha chain family.

Contains 7 FG-GAP repeats. Contains 1 VWFA domain.

Domain

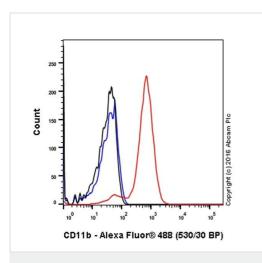
The integrin I-domain (insert) is a VWFA domain. Integrins with I-domains do not undergo

protease cleavage.

**Cellular localization** 

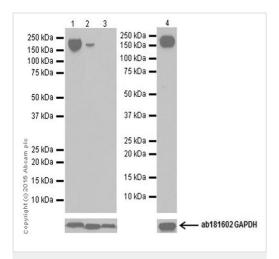
Membrane.

# **Images**



Flow Cytometry - Anti-CD11b antibody [EPR19387] (ab184308)

Flow cytometric analysis of RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) cells labeling CD11b with ab184308 at 1/70 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] -Isotype control (ab172730) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti Rabbit IgG (Alexa Fluor<sup>®</sup> 488) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-CD11b antibody [EPR19387] (ab184308)

**All lanes :** Anti-CD11b antibody [EPR19387] (ab184308) at 1/1000 dilution

**Lane 1 :** J774A.1 (Mouse macrophage reticulum cell sarcoma cell line) whole cell lysate

Lane 2 : M1 (Mouse myeloblast myeloid leukemia cell line) whole cell lysate

Lane 3: WEHI-231 (Mouse B cell lymphoma cell line) whole cell lysate

**Lane 4 :** RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

Lysates/proteins at 20 µg per lane.

#### **Secondary**

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

**Predicted band size:** 127 kDa **Observed band size:** 170 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

CD11b is a 170 kD glycoprotein also known as  $\alpha M$  integrin, Mac-1  $\alpha$  subunit (PMID: 10603370). It is exclusively restricted to cells of the myeloid lineages and monocytes, but not in T or B cell lines, so WEHI-231 cell lysate serves as a negative control (PMID: 2457584).

WEHI-231 (-ve cell line)

-VE CONTROL 1

-VE CONTROL 2

-VE CONTROL 2

MERGED

MERGED

Immunocytochemistry/ Immunofluorescence - Anti-CD11b antibody [EPR19387] (ab184308)

Immunofluorescent analysis of 100% methanol-fixed RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) and WEHI-231 (Mouse B cell lymphoma cell line) cells labeling CD11b with ab184308 at 1/500 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1,000 dilution (green).

Confocal image showing membrane staining on RAW 264.7 cells and no staining on WEHI-231 cells (negative cell line).

The nuclear counter stain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Loading Control (ab7291) at 1/1,000 dilution and Goat Anti-Mouse lgG H&L (Alexa Fluor® 594) preadsorbed (ab150120) at 1/1,000 dilution (red).

The negative controls are as follows:

-ve control 1: ab184308 at 1/500 dilution followed by  $\underline{ab150120}$  at 1/1,000 dilution.

-ve control 2:  $\underline{ab7291}$  at 1/1000 dilution followed by  $\underline{ab150077}$  at 1/1,000 dilution.

1 2 3

250 kDa —
150 kDa —
150 kDa —
75 kDa —
50 kDa —
91d 37 kDa —
91d 37 kDa —
91d 25 kDa —
(2) 20 kDa —
10 kDa —
10 kDa —
10 kDa —

Immunoprecipitation - Anti-CD11b antibody [EPR19387] (ab184308)

CD11b was immunoprecipitated from 0.35 mg of RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate with ab184308 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab184308 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

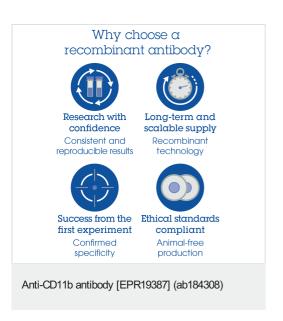
Lane 1: RAW 264.7 whole cell lysate, 10µg (Input).

Lane 2: ab184308 IP in RAW 264.7 whole cell lysate.

Lane 3: Rabbit lgG,monoclonal [EPR25A]- Isotype
Control (<u>ab172730</u>) instead of ab184308 in RAW 264.7 whole cell lysate.

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

Exposure time: 8 seconds.



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

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