abcam

ab254183

Anti-CD11c antibody [KB90]

Anti-CD11c antibody [KB90] (ab254183) is a mouse monoclonal antibody detecting CD11c in **Flow Cytometry**. Suitable for **Human, Mouse**.

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	KB90
Purification technique	Affinity purification Protein A
Concentration	0.973 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC

Tested

Species	Mouse
Dilution info	1/100
Notes	-

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/800
Notes	-

Species	Human
Dilution info	1/800
Notes	-

WB

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human
Dilution info	-
Notes	-

Target data

See full target information ITGAX

Function	Integrin alpha-X/beta-2 is a receptor for fibrinogen. It recognizes the sequence G-P-R in fibrinogen. It mediates cell-cell interaction during inflammatory responses.

It is especially important in monocyte adhesion and chemotaxis. Functions as a receptor of the erythrocyte-specific adhesion molecule ICAM4 and mediates erythrophagocytosis (PubMed:16985175).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-CD11c antibody [KB90] (ab254183) is a mouse recombinant monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt) in Human, Mouse samples.

Other related products
We have a range of other formats of antibody clone [KB90] also available for your convenience: ab254183, Carrier free - ab255937, Alexa Fluor® 488 - ab313900, Alexa Fluor® 594 - ab313901, Alexa Fluor® 647 - ab313902, PE - ab316176

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD11c also known as ITGAX is a subunit of integrin proteins that plays a pivotal role in immune cell function. This protein has a molecular mass of about 150 kDa and is primarily expressed on the surface of dendritic cells monocytes and macrophages. It serves as a marker for these cells commonly utilized in applications like CD11c flow cytometry and CD11c IHC. Researchers often study this target using CD11c antibodies to explore immune system dynamics and cell surface characteristics.
Biological function summary	CD11c functions as an integrin alpha X subunit forming a heterodimer with the beta 2 subunit known as ITGB2. This complex is important for cell adhesion and migration processes. It mediates the binding of leukocytes to endothelial cells facilitating their migration from the bloodstream to sites of inflammation or infection. CD11c's presence on immune cells makes it essential for presenting antigens and initiating immune responses therefore having critical implications for immunity.
Pathways	CD11c plays a significant role in the immune system particularly in the leukocyte adhesion and migration pathways. It partners with proteins like ITGB2 to mediate these functions. The signaling pathways involving CD11c and related molecules regulate leukocyte trafficking and activation ensuring proper localization and function at sites of damage or infection. These pathways are essential for maintaining immune homeostasis and prompt responses to pathogens.
Associated diseases and disorders	CD11c has significant connections to autoimmune diseases and chronic inflammatory conditions. Aberrant CD11c expression or activity can contribute to the pathogenesis of conditions like rheumatoid arthritis where leukocyte migration and persistent inflammation play a role. Studies also link CD11c with proteins involved in these disorders highlighting its importance in disease progression and potential as a therapeutic target. The understanding of CD11c's role in these conditions can guide the development of treatments aimed at modulating immune responses.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

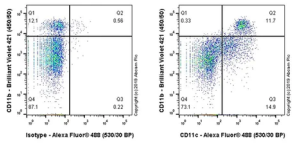
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images

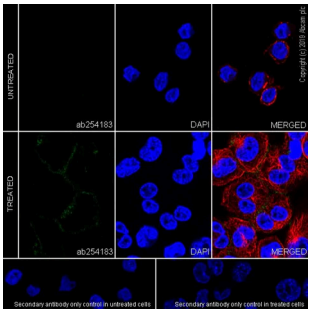


Flow Cytometry - Anti-CD11c antibody [KB90] (ab254183)

CD11c Flow Cytometry staining using mouse Anti-CD11c antibody

Flow cytometric analysis of human PBMCs (peripheral blood mononuclear cells) labeling CD11c with ab254183 at 1/800 dilution (Right panel) compared with an Isotype control (Left panel). Goat anti mouse IgG (Alexa Fluor® 488, ab150113), at 1/2000 dilution was used as the secondary antibody.
Cells were stained with mouse IgG (Left) or ab254183 (Right). Then stained with anti-CD11b conjugated to BV421.

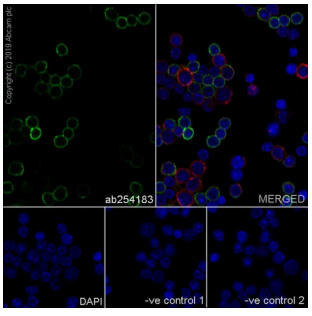
Gated on viable cells.



Immunocytochemistry - Anti-CD11c antibody [KB90] (ab254183)

CD11c Immunocytochemistry staining using mouse Anti-CD11c antibody

Immunocytochemistry analysis of 4% parafomaldehyde-fixed, 0.1% Triton X-100 permeabilized THP-1 (human monocytic leukemia cell line) (either untreated or treated with 400 ng/mL PMA for 96 hours) cells labeling CD11c with ab254183 at 1/100 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in THP-1 cells treated with PMA (400ng/mL, 96h). The nuclear counter stain is DAPI (Blue). Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Red).
Secondary antibody only control: Used PBS instead of primary antibody, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution.

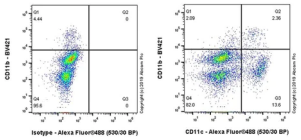


Immunocytochemistry - Anti-CD11c antibody [KB90] (ab254183)

CD11c Immunocytochemistry staining using mouse Anti-CD11c antibody

Immunocytochemistry analysis of 4% parafomaldehyde-fixed, 0.1% Triton X-100 permeabilized mouse splenocytes labeling CD11c with ab254183 at 1/100 dilution followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in subsets of mouse splenocytes . The nuclear counter stain is DAPI (Blue). Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at 1/200 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Red).
The negative controls are as follows:
-ve control 1: ab254183 at 1/50 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit

secondary secondary at 1/1000 dilution.
-ve control 2: ab179504 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution.



Flow Cytometry - Anti-CD11c antibody [KB90] (ab254183)

CD11c Flow Cytometry staining using mouse Anti-CD11c antibody

Flow cytometric analysis of mouse splenocytes labeling CD11c with ab254183 at 1/800 dilution (Right panel) compared with an Isotype control (Left panel). Goat anti mouse IgG (Alexa Fluor® 488, ab150113), at 1/2000 dilution was used as the secondary antibody.
Cells were stained with mouse IgG (Left) or ab254183 (Right). Then stained with anti-CD11b conjugated to BV421.

Gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.