abcam

ab11029

Anti-CD11c antibody [3.9]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	3.9
Purification technique	Affinity purification
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µg/mL
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Rat
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Species	Mouse
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

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

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.

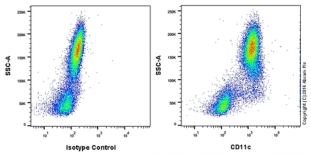
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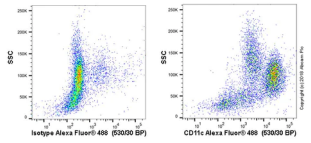
3 product images



Flow Cytometry - Anti-CD11c antibody [3.9] (ab11029)

CD11c Flow Cytometry staining using mouse Anti-CD11c antibody

Human peripheral blood lymphocytes stained with ab11029. Human whole blood was processed using a modified protocol based on Chow *et al*, 2005 (PMID: 16080188). In brief, human whole blood was fixed in 4% formaldehyde (methanol-free) for 10 min at 22°C. Red blood cells were then lysed by the addition of Triton X-100 (final concentration - 0.1%) for 15 min at 37°C. For experimentation, cells were stained with anti-CD11c ab11029 (right panel) at 1/100 dilution for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150117) at 1/2000 dilution for 30 min at 4°C. Isotype control antibody (left panel) was mouse monoclonal IgG1 (ab170190) used under the same conditions.
Acquisition of >30,000 total events were collected using a 50mW Argon Blue laser (488nm) and 530/30 bandpass filter. Gating strategy – events were collected with the forward and side light-scatter characteristics of viable cells.

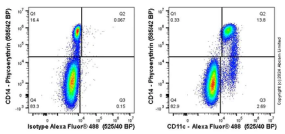


Flow Cytometry - Anti-CD11c antibody [3.9] (ab11029)

CD11c Flow Cytometry staining using mouse Anti-CD11c antibody

Human whole blood stained with ab11029 (right) or mouse IgG1κ (left). Red blood cells of 200µl human whole blood were lysed, then cells were incubated for 30 min on ice in 1x PBS containing 10µg/ml human IgG and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab11029) or mouse IgG1κ isotype (ab170190) (100µl at 10 µg/ml) for 30 min on ice.
The secondary antibody Goat anti-mouse IgG H&L (Alexa Fluor ® 488, pre-adsorbed) (ab150177) was used at 1/2000 dilution for 30 min at 4°C.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable single cells.



Flow Cytometry - Anti-CD11c antibody [3.9] (ab11029)

CD11c Flow Cytometry staining using mouse Anti-CD11c antibody

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) with ab264107 (right) or Mouse IgG1, kappa monoclonal [15-6E10A7] - Isotype Control (left). PBMCs were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10 % normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab264107 or Mouse IgG1, kappa monoclonal [15-6E10A7] - Isotype Control (1x 10^6 in 100 µl at 0.2 µg/ml (1/5000)) for 30min on ice. The cells were simultaneously stained with CD14.

The secondary antibody Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min on ice

Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on live cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS only (ab264107).

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