abcam

ab233046

Alexa Fluor® 647 Anti-CD11c antibody [N418]

Anti-CD11c antibody [N418] conjugated to Alexa Fluor® 647 - suitable for flow cytometry, and reacts with mouse samples. Clone [N418] is a Armenian Hamster monoclonal antibody and one of the most commonly used clones for flow cytometry.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG
Host species	Armenian hamster
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	N418
Purification technique	Affinity purification Protein G
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
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.

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, Stable for 12 months at -20°C, Store in the dark

Notes

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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.

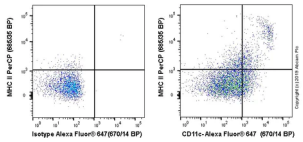
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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - Alexa Fluor® 647 Anti-CD11c antibody [N418] (ab233046)

CD11c Flow Cytometry staining using armenian hamster Anti-CD11c antibody

C57BL/6 mouse splenocytes stained with ab233046 (right) or Armenian Hamster IgG Alexa Fluor® 647 (monoclonal) (left). C57BL/6 Mouse splenocytes were incubated for 30 min on ice in 1x PBS containing 10 µg/ml anti CD16/32 antibody and 10% normal goat serum to block FC receptors and non-specific protein-protein interactions followed by the antibody (ab233046) or Armenian Hamster IgG 647 Isotype ($1x10^6$ in 100 µl at 1:500 (1 µg/ml)) for 30 min on ice. The cells were simultaneously stained with the following conjugated antibodies: MHC Class II PerCP, CD19 APC and CD3 PE.
Acquisition of >50,000 events were collected using a 40 mW Red laser (640nm) and 670/14 bandpass filter. Gating strategy: T and B cells were excluded from viable lymphocytes and expression of MHC Class II and CD11c was assessed.

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