abcam

ab303595

Alexa Fluor® 647 Anti-CD1a antibody [NA1/34]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
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	NA1/34
Purification technique	Affinity purification
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/12500
Notes	-

Target data

See full target information CD1A

Function	Antigen-presenting protein that binds self and non-self lipid and glycolipid antigens and presents them to T-cell receptors on natural killer T-cells.

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, Store in the dark

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

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.

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Supplementary info

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

Activity summary	CD1a also known as T6 antigen or CD1 is a protein with an estimated molecular mass of 37 kDa. It is expressed mainly on the surface of Langerhans cells in the skin and dendritic cells in the thymus. CD1a belongs to the CD1 family which presents lipid antigens to T cells. The protein is an important marker in immunophenotyping of these dendritic cells making it useful in flow cytometry applications.
Biological function summary	CD1a participates in the immune system by presenting lipid and glycolipid antigens to T lymphocytes including natural killer T (NKT) cells. It forms a complex with β2-microglobulin which is essential for its proper function and antigen presentation. CD1a expression helps differentiate between types of dendritic cells with CD1a-positive cells often engaging in specific responses to microbial lipid antigens.
Pathways	CD1a plays a significant role in the antigen presentation pathway particularly in lipid antigen presentation to T cells. This is important for initiating immune responses. It interacts with related proteins such as CD1b and CD1c which also present lipid antigens. CD1a has implications in innate and adaptive immunity and can influence pathways involved in microbial recognition and elimination.
Associated diseases and disorders	CD1a is associated with certain skin conditions like Langerhans Cell Histiocytosis and psoriasis. It is involved in the pathogenesis of these diseases by affecting immune responses in the skin. In Langerhans Cell Histiocytosis CD1a-positive cells accumulate abnormally. Additionally CD1a is often studied alongside related proteins like CD207 (Langerin) to understand these conditions better.

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.

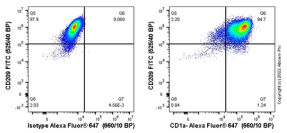
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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1 product image



Flow Cytometry - Alexa Fluor® 647 Anti-CD1a antibody [NA1/34] (ab303595)

CD1a Flow Cytometry staining of human monocyte-derived dendritic cells using mouse Anti-CD1a antibody

Flow cytometry staining of human monocyte-derived dendritic cells with ab303595 (right) or Rabbit IgG (monoclonal) Alexa Fluor® 647 (ab199093) isotype (left). Monocyte-derived dendritic 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 (ab303595) or Rabbit IgG (monoclonal) Alexa Fluor® 647 (ab199093) isotype (100 µl at 0.04µg/ml (1/12500)) for 30 min on ice. The cells were simultaneously stained with CD209.

Acquisition of >30000 events were collected using a 40 mW Red laser (638 nm) and 660/10 bandpass filter. Events were gated on live single cells.

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