abcam

ab22352

PE Anti-CD1a antibody [NA1/34]

Anti-CD1a antibody [NA1/34] conjugated to PE - suitable for flow cytometry, and reacts with human and Crab-Eating Macaque samples. Clone [NA1/34] is a mouse monoclonal antibody cited in 5 publications.

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Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD1A protein. The exact immunogen used to generate this antibody is proprietary information. Database link P06126
Clone number	NA1/34
Specificity	ab222352 recognises specifically CD1a expressed by human cortical thymocytes, Langerhans cells, Dendritic cells and a subset of B cells.
Purification notes	Purified IgG prepared by ion exchange chromatography

Reactivity data

Flow Cyt

Expected

Species	Cynomolgus monkey
Dilution info	10 µL for 10^6 Cells
Notes	ab91363 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. Use 10µl for 10^6 cells in 100µl.

Species	Human
Dilution info	10 µL for 10^6 Cells
Notes	ab91363 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody. Use 10µl for 10^6 cells in 100µl.

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 conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

Recommended negative control: Mouse IgG2a Negative Control

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

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Not recommended

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