abcam

ab24055

Anti-CD1a antibody [NA1/34-HLK]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.4 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-HLK
Purification technique	Ion exchange chromatography
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified IgG prepared by ion exchange chromatography

Reactivity data

Flow Cyt

Expected

Species	Monkey
Dilution info	-
Notes	Use 10 ul of this concentration to label 10^6 cells in 100ul. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	Use 10 ul of this concentration to label 10^6 cells in 100ul. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Species	Dog
Dilution info	-
Notes	Use 10 ul of this concentration to label 10^6 cells in 100ul. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

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

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.

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