abcam

ab95733

PE Anti-CD1d antibody [51.1]

Anti-CD1d antibody [51.1] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [51.1] is a mouse monoclonal antibody cited in 17 publications.

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Key facts

Isotype	IgG2b
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: PBS, 0.1% Gelatin
Form	Liquid
Clonality	Monoclonal
Immunogen	Protein within Human CD1D. The exact immunogen used to generate this antibody is proprietary information. Database link P15813
Clone number	51.1
Purification technique	Affinity purification Protein G

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	5 µL for 10^6 Cells

Notes	ab91532 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Target data

See full target information CD1D

Function	Antigen-presenting protein that binds self and non-self glycolipids 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

Supplementary info

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

Activity summary	CD1d is a non-classical major histocompatibility complex (MHC) class I-like molecule also known as the CD1d molecule. This protein has a mass of approximately 37 kDa and plays an important role in the presentation of lipid antigens to T cells. CD1d is mainly expressed on the surface of antigen-presenting cells including dendritic cells B cells and epithelial cells in the intestine. The expression pattern highlights its relevance in immune responses at mucosal surfaces.
Biological function summary	CD1d functions by presenting lipid and glycolipid antigens to a specialized subset of T cells called invariant Natural Killer T (iNKT) cells. CD1d forms a complex with these antigens in the endosomal compartment before migrating to the cell surface. This interaction is critical for activating iNKT cells which then produce cytokines that influence both innate and adaptive immune responses. It is distinct in its role compared to classical MHC molecules in antigen presentation.
Pathways	CD1d's role in antigen presentation influences numerous immune signaling pathways. Its interaction with iNKT cells is part of the broader immune regulatory network impacting the Th1/Th2 cytokine balance and contributing to immune surveillance. CD1d works alongside proteins involved in these pathways such as CD1b and CD1c which also present lipids to T cells highlighting their involvement in maintaining immune system homeostasis.

Associated diseases and disorders	CD1d has been linked to autoimmune diseases and cancers. Within autoimmune disorders the interaction between CD1d and iNKT cells affects disease pathogenesis possibly through cytokine dysregulation. In some cancers CD1d expression changes can disrupt normal immune function allowing tumors to progress. Through these diseases CD1d interacts with proteins such as Nor32 and Nor3 impacting how immune cells recognize and respond to diseased or cancerous cells.

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

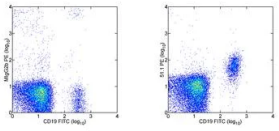
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1 product image



Flow Cytometry - PE Anti-CD1d antibody [51.1] (ab95733)

CD1d Flow Cytometry staining using mouse Anti-CD1d antibody

Staining of normal Human peripheral blood cells with Anti-Human CD19 FITC and Mouse IgG2b kappa Isotype Control PE (left) or ab95733 (right). Cells in the lymphocyte gate were used for analysis.

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