abcam

ab93508

PE Anti-CD1d antibody [1B1]

Anti-CD1d antibody [1B1] conjugated to PE - suitable for flow cytometry, and reacts with mouse samples. Clone [1B1] is a rat monoclonal antibody cited in 48 publications.

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Key facts

Isotype	IgG2b
Host species	Rat
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: PBS, 0.87% Sodium chloride
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Cd1d1 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P11609
Clone number	1B1
Purification technique	Affinity purification Protein G
Specificity	Also detects beta2-m associated CD1d.
Light chain type	kappa
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	0.125 µg for 10^5-10^8 Cells
Notes	-

Target data

See full target information Cd1d1

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

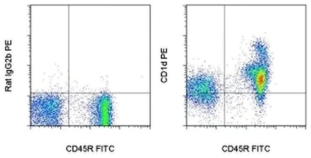
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - PE Anti-CD1d antibody [1B1] (ab93508)

CD1d Flow Cytometry staining using rat Anti-CD1d antibody

Flow cytometric analysis staining C57Bl/6 mouse splenocytes with Anti-Human/Mouse CD45R FITC and 0.06 µg of Rat IgG2b K Isotype Control PE (left) or 0.06 µg of ab93508 (right). Cells in the lymphocyte gate were used for analysis.

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