abcam

ab215445

Anti-CD1d antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.02% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), 48.98% TBS, 1X, 1% BSA
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Mouse Cd1d1 aa 50-100 conjugated to Keyhole Limpet Haemocyanin. The exact immunogen used to generate this antibody is proprietary information. Database link P11609
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Rat
Dilution info	1/100 - 1/1000
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
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 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

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.

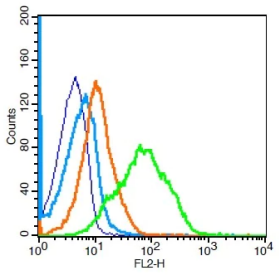
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1 product image



Flow Cytometry (Intracellular) - Anti-CD1d antibody (ab215445)

CD1d Flow Cytometry (Intracellular) staining using rabbit Anti-CD1d antibody

Intracellular flow cytometric analysis of mouse spleen cellslabeling CD1d with ab215445 at 1/100 dilution for 30 minutes followed by incubation with a PE Conjugated secondary (green) for 30 minutes compared to control cells (blue), secondary only (light blue) and isotype control (orange).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.