abcam

ab11076

Anti-CD1d antibody [NOR3.2 (NOR3.2/13.17)]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	NOR3.2 (NOR3.2/13.17)
Purification technique	Affinity purification
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	

Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Predicted

Species	Sheep
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Sheep
Dilution info	-
Notes	-

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 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

Notes

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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.

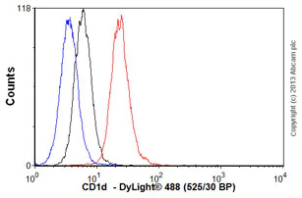
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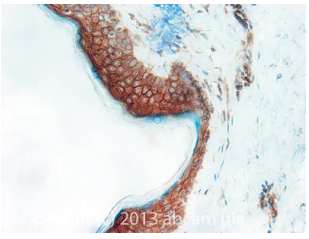
3 product images



Flow Cytometry (Intracellular) - Anti-CD1d antibody [NOR3.2 (NOR3.2/13.17)] (ab11076)

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

Overlay histogram showing MOLT4 cells stained with ab11076 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab11076, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Unlabeled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD1d antibody [NOR3.2 (NOR3.2/13.17)] (ab11076)

CD1d Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD1d antibody

IHC image of CD1d staining in human normal skin formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with EDTA based pH 9.0 solution (epitope retrieval solution 2) for 20 mins. The section was then incubated with ab11076, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

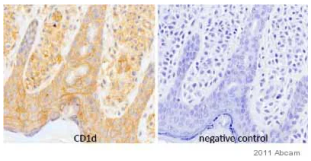


Image courtesy of an anonymous customer review.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD1d antibody [NOR3.2 (NOR3.2/13.17)] (ab11076)

ab11076 staining CD1d in human skin tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).

Tissue was fixed with formaldehyde and an antigen retrieval step was performed using EDTA pH 8.0 for 20 minutes at 100°C. Samples were then incubated with ab11076 at a 1/200 dilution for 20 minutes at 25°C. The secondary used was an undiluted HRP conjugated goat anti-mouse/rabbit IgG.

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