abcam

ab25599

PE Anti-CD1 antibody [76-7-4]

Anti-CD1 antibody [76-7-4] conjugated to PE - suitable for flow cytometry, and reacts with pig samples. Clone [76-7-4] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.3 Preservative: 0.09% Sodium azide Constituents: PBS, 16% Sucrose
Form	Liquid
Clonality	Monoclonal
Clone number	76-7-4
Purification technique	Affinity purification
Light chain type	kappa
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Pig

Dilution info	0.2 µg for 10^6 Cells
Notes	-

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 conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Supplementary info

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

Activity summary	The CD1 group of glycoproteins are involved in immune response. Also known as cluster of differentiation 1 the CD1 molecules have multiple isoforms including CD1a CD1b CD1c CD1d and CD1e. CD1 proteins have a molecular mass ranging from 43 to 49 kDa. These proteins are expressed on the surface of antigen-presenting cells like dendritic cells B cells and some types of T cells. CD1 molecules structurally resemble MHC class I molecules but function differently by presenting lipid and glycolipid antigens to T cells.
Biological function summary	CD1 proteins play a role in the immune system by presenting lipid antigens to T cells. This antigen presentation aids in the activation of T cells particularly Natural Killer T (NKT) cells. CD1 molecules participate as part of a complex with β2-microglobulin which stabilizes the CD1 structure and facilitates antigen delivery to the cell surface. The presence of CD1 on antigen-presenting cells ensures that a broad range of lipid antigens can be sampled integrating important functions in both innate and adaptive immunity.
Pathways	CD1 proteins are important in adaptive immune system pathways. They take part in pathogen recognition and immune response pathways where they work together with pattern recognition receptors and T-cell receptors. These proteins possess similarities with MHC molecules engaging in parallel pathways of antigen processing and presentation. Their activity is intertwined with proteins like CD3

	and the T-cell receptor complex; they facilitate communication and response initiation in T cells.
Associated diseases and disorders	CD1 proteins have implications in autoimmunity and infectious diseases. CD1 molecules are involved in the recognition of mycobacterial lipids which is relevant to diseases like tuberculosis where an immune response is important. The proteins also relate to autoimmune diseases as dysregulation may lead to improper immune cell activation. Researchers are investigating links between CD1 and inflammatory diseases where molecules like CD1d interact with CD1-restricted NKT cells highlighting CD1's role in modulating immune responses in health and disease contexts.

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

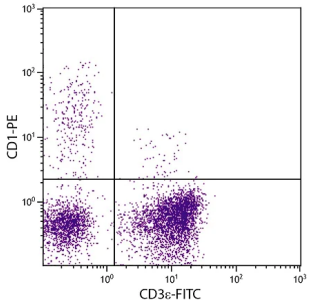
We do not recommend this combination. It is not covered by our product promise.

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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1 product image



Flow Cytometry - PE Anti-CD1 antibody [76-7-4] (ab25599)

CD1 Flow Cytometry staining using mouse Anti-CD1 antibody

Flow cytometry analysis staining CD1 in porcine peripheral blood lymphocytes using ab25599.

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