abcam

ab232916

PE Anti-CD1b antibody [SN13]

Anti-CD1b antibody [SN13] conjugated to PE - suitable for flow cytometry, and reacts with human samples. Clone [SN13] is a mouse monoclonal antibody.

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

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Clone number	SN13
Purification technique	Size-exclusion chromatography

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	10 µL for 10^6 Cells
Notes	-

Target data

See full target information CD1B

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	CD1b also known as CD1B is a member of the CD1 family of glycoproteins with a molecular mass around 37 to 40 kilodaltons. It is expressed on the surface of antigen-presenting cells such as dendritic cells and some monocytes. CD1b plays a mechanical role in binding lipid-based antigens. This binding facilitates the presentation of these antigens to T cells. Its presence on the cell surface is essential for this antigen presentation function.
Biological function summary	CD1b functions in the immune system as part of the antigen presentation complex. It specifically presents lipid antigens derived from microbial sources to T cells helping create an immune response. The protein associates with beta-2 microglobulin which stabilizes its structure on the cell surface. CD1b can effectively capture and present mycobacterial lipid antigens which are important for the immune response against certain bacterial infections.
Pathways	CD1b actively contributes to immunity by participating in the lipid antigen presentation pathway. This pathway involves the trafficking of endogenous and exogenous lipids aided by proteins like saposins. CD1b interacts with other CD1 family proteins such as CD1a and CD1c which are involved in similar pathways for presenting different types of lipid antigens to T cells therefore diversifying the immune response.
Associated diseases and disorders	CD1b is implicated in tuberculosis as Mycobacterium tuberculosis interacts with this protein to modulate the host's immune defenses. Defective CD1b function can influence the body's response to this pathogen potentially leading to a chronic infection state. It also relates to autoimmune diseases such as multiple sclerosis where dysregulated lipid antigen presentation might influence disease

progression. In these conditions interactions with proteins like HLA-DR can modify the immune landscape and disease outcomes.

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

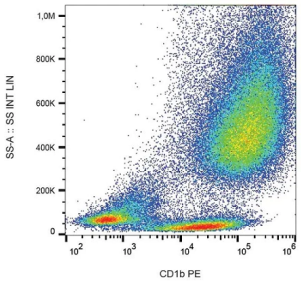
We do not recommend this combination. It is not covered by our product promise.

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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Terms & Conditions.

1 product image



Flow Cytometry - PE Anti-CD1b antibody [SN13] (ab232916)

CD1b Flow Cytometry staining using mouse Anti-CD1b antibody

Surface staining of IL-4 and GM-CSF stimulated human peripheral blood cells labeling CD1b with ab232916 (10 µl reagent / 100 µl of whole blood). Gating strategy: $HLA^{-}DR^{+}CD11c^{+}$ and $CD11c^{-}$ cells.

Recommended negative control: ab125926.

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