abcam

ab239249

FITC Anti-CD79b antibody [CB3-1]

Anti-CD79b antibody [CB3-1] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [CB3-1] is a mouse monoclonal antibody cited in 11 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing CD79B protein. The exact immunogen used to generate this antibody is proprietary information. Database link P40259
Clone number	CB3-1
Purification technique	Size-exclusion chromatography
Purification notes	Purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	4 µL for 10^6 Cells
Notes	(or 100 µl of whole blood).

Target data

See full target information CD79B

Function	Required in cooperation with CD79A for initiation of the signal transduction cascade activated by the B-cell antigen receptor complex (BCR) which leads to internalization of the complex, trafficking to late endosomes and antigen presentation. Enhances phosphorylation of CD79A, possibly by recruiting kinases which phosphorylate CD79A or by recruiting proteins which bind to CD79A and protect it from dephosphorylation.

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	CD79b also known as Ig-beta is a protein that plays a mechanical role as part of the B-cell antigen receptor complex. This protein with a mass of approximately 40 kDa is mainly expressed on the surface of B lymphocytes. It is an important component of the heterodimeric complex composed of CD79a (Ig-alpha) and CD79b which associates with membrane-bound immunoglobulins to form the B-cell receptor (BCR). CD79b is essential for transducing activation signals following antigen binding to the BCR.
Biological function summary	The primary role of CD79b within the immune system is to support signal transduction. Upon binding of an antigen to BCR on B cells CD79b as part of the BCR complex initiates signaling cascades which lead to B-cell activation proliferation and differentiation. These processes are critical for humoral immunity ensuring adequate antibody production. CD79b is often found in association with CD19 another important B-cell surface protein and together they aid in amplifying the signals required for B-cell response.

Pathways	CD79b is deeply involved in the B-cell receptor signaling pathway and the broader adaptive immune response. Once the BCR is engaged by an antigen CD79b helps activate intracellular signaling pathways that involve kinases such as SYK and BLNK which help propagate and amplify the immune response. These pathways also interact with other receptor components like CD22 and CD19 creating a network of interactions ensuring effective pathogen recognition and response.
Associated diseases and disorders	CD79b carries significant relevance in the context of B-cell malignancies such as chronic lymphocytic leukemia (CLL) and some types of lymphoma. Dysregulation or mutations in CD79b can affect BCR signaling leading to unchecked B-cell proliferation characteristic of these diseases. Additionally CD79b's interaction with proteins such as SYK in the signaling pathways makes it a potential therapeutic target in treating B-cell related cancers. Researchers are actively investigating anti-CD79b therapies to disrupt abnormal signaling in B-cell malignancies.

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

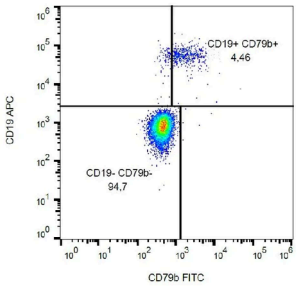
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1 product image



Flow Cytometry - FITC Anti-CD79b antibody [CB3-1] (ab239249)

CD79b Flow Cytometry staining using mouse Anti-CD79b antibody

Flow cytometric analysis of human peripheral blood labeling CD79b with ab239249. Surface staining. Gated on leukocytes.

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