abcam

ab239596

Anti-CD79b antibody [CB3-1] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	CB3-1
Purification technique	Affinity purification Protein A
Concentration	1.033 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

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	Do Not Freeze

Notes

ab239596 is the carrier-free version of ab130422.
What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

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

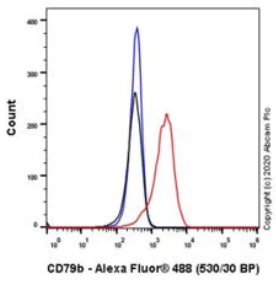
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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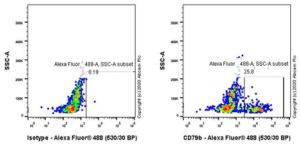
2 product images



Flow Cytometry - Anti-CD79b antibody [CB3-1] - BSA and Azide free (ab239596)

CD79b Flow Cytometry staining using mouse Anti-CD79b antibody

This data was developed using ab130422, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of Ramos (human Burkitt's lymphoma cell line) cells labeling CD79b with ab130422 at 1/50 (10 µg/mL) dilution (Red) compared with an Isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Fc receptors were blocked with 20 µg/mL Human IgG for 15 minutes on ice. Primary antibody staining for 30 minutes on ice. Secondary antibody staining for 30 minutes on ice.



Flow Cytometry - Anti-CD79b antibody [CB3-1] - BSA and Azide free (ab239596)

CD79b Flow Cytometry staining using mouse Anti-CD79b antibody

This data was developed using ab130422, the same antibody clone in a different buffer formulation.
Flow cytometry staining of human PBMC for CD79b with ab130422 at 1/50 dilution (10 µg/ml) (right) or an isotype control (left). Fc receptors were blocked with 20 µg/ml Human IgG for 15 minutes on ice. Primary antibody staining for 30 minutes on ice. Secondary antibody staining for 30 minutes on ice.

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