abcam

ab314044

Anti-CD79B antibody [BLR229K] - BSA free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human CD79B aa 200-250. The exact immunogen used to generate this antibody is proprietary information. Database link P40259
Clone number	BLR229K

Reactivity data

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

ICC

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

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 duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

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

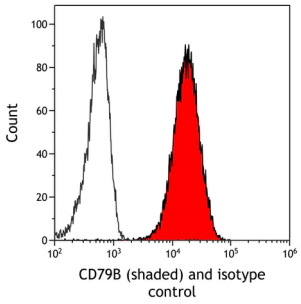
We do not recommend this combination. It is not covered by our product promise.

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.

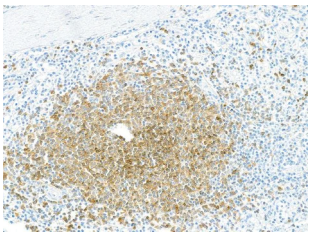
Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



Flow Cytometry (Intracellular) - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Detection of human CD78B(shaded) in Daudi (Human Burkitt's lymphoma cell line) cells by Flow Cytometry (Intracellular). Fixed in 4% formaldehyde and permeabilized with 90% methanol. 1 µl per 1 x 10^6 cells. Antibody: Standard version of ab314044 (shaded red) or isotype control (unshaded). Secondary: DyLight® 650-conjugated goat anti-rabbit IgG.



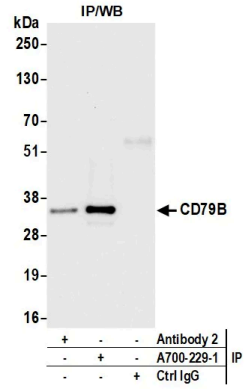
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Sample: FFPE section of human spleen. Antibody: Standard version of ab314044 at a 1/100 dilution. Secondary: HRP-conjugated goat anti-rabbit IgG. Epitope retrieval with citrate buffer pH 6.0 is recommended for FFPE tissue sections.



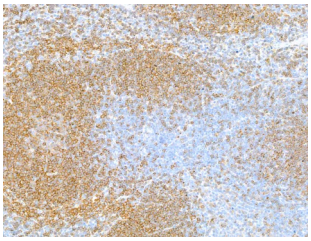
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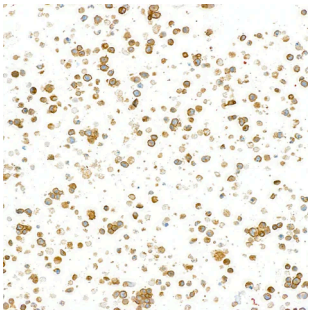
Immunoprecipitation - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

Samples:Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from Raji cells prepared using NETN lysis buffer. Antibodies:Rabbit anti-CD79B recombinant monoclonal antibody [BLR229K] (A700-229 lot 1) used for IP at 20 µl/mg lysate. CD79B was also immunoprecipitated by a second antibody against a different epitope of CD79B (Antibody 2). For blotting immunoprecipitated CD79B, A700-229 was used at 1:1000. Detection:Chemiluminescence with an exposure time of 3 seconds.
All lanes:
Immunoprecipitation - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)



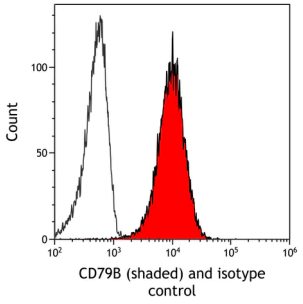
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Sample: FFPE section of mouse spleen. Antibody: Standard version of ab314044 at a 1/100 dilution. Secondary: HRP-conjugated goat anti-rabbit IgG. Epitope retrieval with citrate buffer pH 6.0 is recommended for FFPE tissue sections.



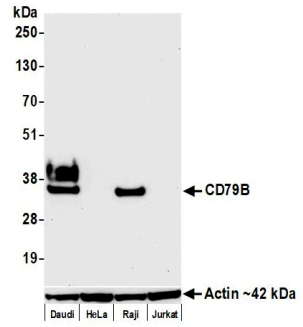
Immunocytochemistry - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Sample: FFPE section of CH27 (Mouse B cell lymphoma cell line) cells. Antibody: Standard version of ab314044 at a 1/100 dilution. Secondary: HRP-conjugated goat anti-rabbit IgG. Epitope retrieval with citrate buffer pH 6.0 is recommended for FFPE cell sections.



Flow Cytometry (Intracellular) - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Detection of mouse CD78B in A20 (Mouse reticulum sarcoma cell line) cells by Flow Cytometry (Intracellular). Fixed in 4% formaldehyde and permeabilized with 90% methanol. 1 µl per 1 x 10^6 cells. Antibody: Standard version of ab314044 (shaded red) or isotype control (unshaded). Secondary: DyLight® 650-conjugated goat anti-rabbit IgG.



Western blot - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

Samples: Whole cell lysate (50 µg) from Daudi, HeLa, Raji, and Jurkat cells prepared using NETN lysis buffer. Antibody:Rabbit anti-CD79B recombinant monoclonal antibody [BLR229K] (A700-229 lot 1) used at 1:1000. Secondary:HRPconjugated goat anti-rabbit IgG (A120-101P). Detection: Chemiluminescence with an exposure time of 10 seconds. Lower Panel: Rabbit anti-Actin recombinant monoclonal antibody [BLR057F] (A700-057).
All lanes:
Western blot - Anti-CD79B antibody [BLR229K] - BSA free (ab314044) at 1/1000 dilution

Lane 1:
Daudi (Human Burkitt's lymphoma cell line) whole cell lysate at 50 µg

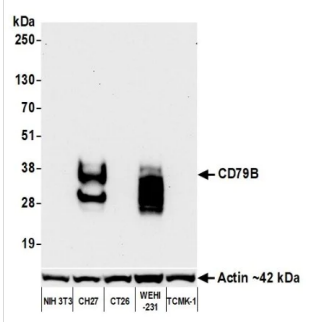
Lane 2:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg

Lane 3:
Raji (Human Burkitt's lymphoma cell line) whole cell lysate at 50 µg

Lane 4:
Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate at 50 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG



Western blot - Anti-CD79B antibody [BLR229K] - BSA free (ab314044)

This data was developed using the standard version of ab314044, the same antibody clone in a different buffer formulation. Lysates prepared using NETN lysis buffer. Detection: Chemiluminescence with an exposure time of 10 seconds. Lower Panel: Rabbit anti-Actin recombinant monoclonal antibody [BLR057F].
All lanes:
Western blot - Anti-CD79B antibody [BLR229K] - BSA free (ab314044) at 1/1000 dilution

Lane 1:
NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate at 50 µg

Lane 2:
CH27 (Mouse B cell lymphoma cell line) whole cell lysate at 50 µg

Lane 3:
CT26 (Mouse colorectal carcinoma cell line) whole cell lysate at 50 µg

Lane 4:
WEHI-231 (Mouse B lymphoma cell line) whole cell lysate at 50 µg

Lane 5:
TCMK-1 (Mouse kidney epithelial cell line) whole cell lysate at 50 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

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