

## Product datasheet

### Anti-CD79b antibody [EPR6860] ab134103

Recombinant **RabMAb**

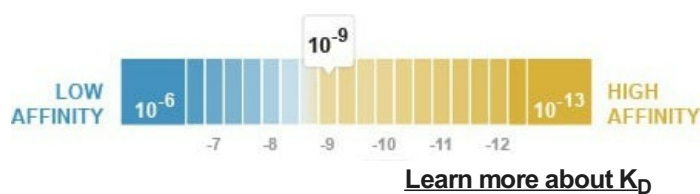
[2 References](#) [7 Images](#)

#### Overview

<b>Product name</b>	Anti-CD79b antibody [EPR6860]
<b>Description</b>	Rabbit monoclonal [EPR6860] to CD79b
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt, ICC/IF <b>Unsuitable for:</b> IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Daudi, Namalwa, Ramos, and Raji cell lysates, Ramos cells Flow cyto: Human PBMCs
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 3.90 x 10 <sup>-9</sup> M



<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR6860
<b>Isotype</b>	IgG

## Applications

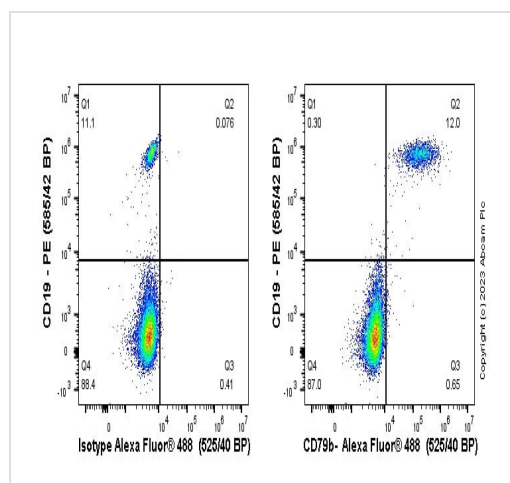
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab134103 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/1000 - 1/10000. Detects a band of approximately 35-40 kDa (predicted molecular weight: 26 kDa).
<b>Flow Cyt</b>		1/10 - 1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
<b>ICC/IF</b>		1/250 - 1/500.

**Application notes** Is unsuitable for IHC-P or IP.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	B-cells.
<b>Involvement in disease</b>	Defects in CD79B are the cause of agammaglobulinemia type 6 (AGM6) [MIM:612692]. It is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development. Affected individuals develop severe infections in the first years of life.
<b>Sequence similarities</b>	Contains 1 Ig-like V-type (immunoglobulin-like) domain. Contains 1 ITAM domain.
<b>Post-translational modifications</b>	Phosphorylated on tyrosine upon B-cell activation.
<b>Cellular localization</b>	Cell membrane. Following antigen binding, the BCR has been shown to translocate from detergent-soluble regions of the cell membrane to lipid rafts although signal transduction through the complex can also occur outside lipid rafts.

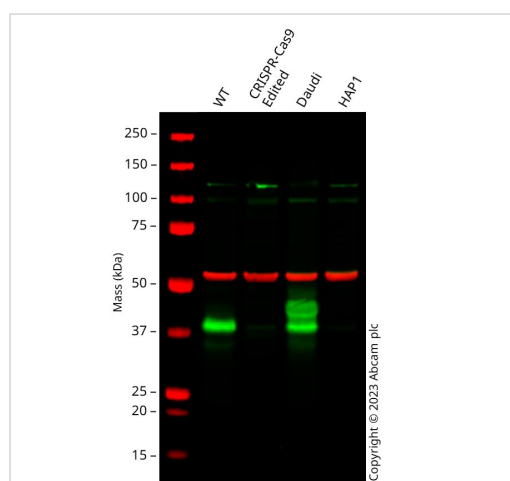


Flow Cytometry - Anti-CD79b antibody [EPR6860]  
(ab134103)

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) with ab134103 (right) or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control (left). PBMCs were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10 % normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab134103 or Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control ( $1 \times 10^6$  in 100 µl at 1.0 µg/ml (1/2300)) for 30min on ice. The cells were simultaneously stained with CD19.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min on ice

Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on viable cells.



Western blot - Anti-CD79b antibody [EPR6860]  
(ab134103)

**All lanes :** Anti-CD79b antibody [EPR6860] (ab134103) at 1/1000 dilution

**Lane 1 :** Wild-type Raji cell lysate

**Lane 2 :** CD79B CRISPR-Cas9 edited Raji cell lysate

**Lane 3 :** Daudi cell lysate

**Lane 4 :** HAP1 cell lysate

Lysates/proteins at 20 µg per lane.

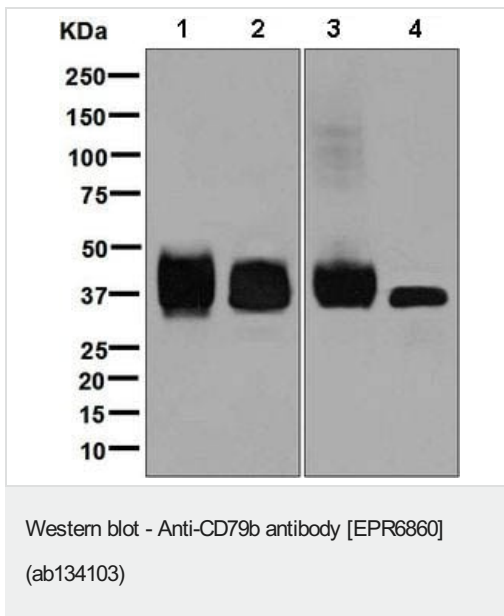
Performed under reducing conditions.

**Predicted band size:** 26 kDa

**Observed band size:** 39 kDa

False colour image of Western blot: Anti-CD79b antibody [EPR6860] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab134103 was shown to bind specifically to CD79b. A band was observed at 39 kDa in wild-type Raji cell lysates with no signal observed at this size in CD79B CRISPR-Cas9 edited cell line [ab273839](#) (CRISPR-Cas9 edited

cell lysate **ab273793**). The band observed in the CRISPR-Cas9 edited lysate lane below 39 kDa is likely to represent a truncated form of CD79b. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and CD79B CRISPR-Cas9 edited Raji cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



**All lanes :** Anti-CD79b antibody [EPR6860] (ab134103) at 1/1000 dilution

**Lane 1 :** Daudi cell lysate

**Lane 2 :** Namalwa cell lysate

**Lane 3 :** Ramos cell lysate

**Lane 4 :** Raji cell lysate

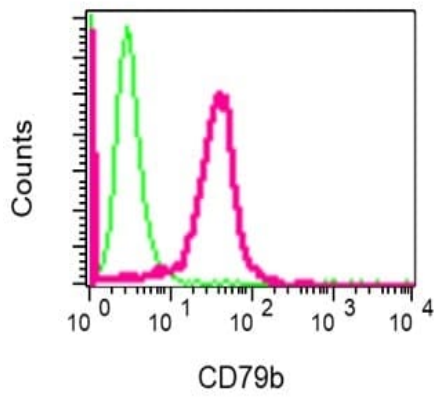
Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** HRP labelled goat anti-rabbit at 1/2000 dilution

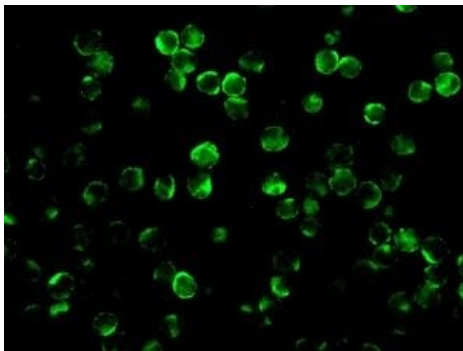
**Predicted band size:** 26 kDa

**Observed band size:** 35-40 kDa



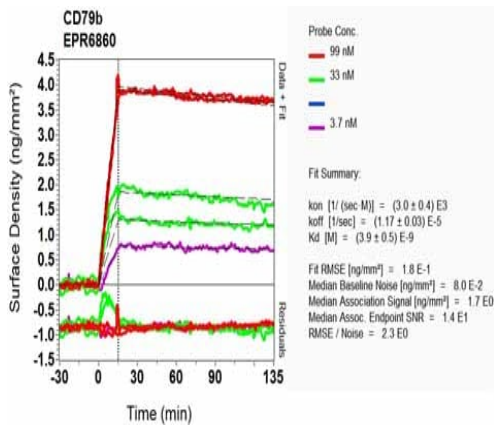
Flow Cytometry - Anti-CD79b antibody [EPR6860]  
(ab134103)

Flow Cytometry analysis of Raji cells labeling CD79b with ab134103 at 1/20 dilution (red). A rabbit IgG was used as negative control (green).



Immunocytochemistry/ Immunofluorescence - Anti-CD79b antibody [EPR6860] (ab134103)

Immunofluorescence analysis of CD79b in Ramos cells, using ab134103 antibody at a dilution of 1/250.



SPR Scanning - Anti-CD79b antibody [EPR6860]  
(ab134103)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-CD79b antibody [EPR6860] (ab134103)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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