Anti-MZB1 antibodies, rat

For research use only

30 µg equal 100 tests, 150 µg equal 500 tests. One test corresponds to labeling of 10 cells.

Product	Content	Order no.
Anti-MZB1-Biotin	30 µg in 200 µL	130-114-765
Anti-MZB1-FITC	30 µg in 200 µL	130-114-766
Anti-MZB1-FITC	150 µg in 1 mL	130-114-609
Anti-MZB1-PE	30 µg in 200 µL	130-114-767
Anti-MZB1-PE	150 µg in 1 mL	130-114-610
Anti-MZB1-APC	30 µg in 200 µL	130-114-768
Anti-MZB1-APC	150 µg in 1 mL	130-114-611
Anti-MZB1-Biotin	150 µg in 1 mL	130-114-608

Warnings

Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, which is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid deposits in plumbing where explosive conditions may develop.

Technical data and background information

Antigen	MZB1
Clone	REA893
Isotype	recombinant human IgG1
Isotype control	REA Control antibodies
Alternative names of antigen	Pacap
Entrez Gene ID	291675
Molecular mass of antigen [kDa]	18
Distribution of antigen	B cells, spleen
Product format	Reagents are supplied in buffer containing stabilizer and 0.05% sodium azide.
Fixation	Cells should be stained prior to fixation, if formaldehyde is used as a fixative.
Storage	Store protected from light at 2–8 °C. Do not freeze.

Clone REA893 recognizes the rat MZB1 antigen, a marginal zone B- and B1-cell–specific protein. Marginal zone B cells are noncirculating mature B cells, that are located in the spleen. In association with heavy and light chains of IgM MZB1 mediates IgM secretion and assembly. Furthermore, MZB1 functions as a proinflammatory cytokine that is involved in chronic inflammation and in affecting cellular expansion. Additional information: Clone REA893 displays negligible binding to Fc receptors.

Reagent requirements

- Buffer: Prepare a solution containing phosphate-buffered saline (PBS), pH 7.2, 0.5% bovine serum albumin (BSA), and 2 mM EDTA by diluting MACS® BSA Stock Solution (# 130-091-376) 1:20 with autoMACS® Rinsing Solution (# 130-091-222). Keep buffer cold (2−8 °C).
  Note: EDTA can be replaced by other supplements such as anticoagulant citrate dextrose formula-A (ACD-A) or citrate phosphate dextrose (CPD). Buffers or media containing Ca^{2+} or Mg^{2+} are not recommended for use.
- (Optional) Fluorochrome-conjugated anti-biotin antibodies, e.g., Anti-Biotin-PE (# 130-090-756) as secondary antibody reagent in combination with biotinylated antibodies.
- (Optional) Propidium Iodide Solution (# 130-093-233) for flow cytometric exclusion of dead cells without fixation.
- (Optional) Fixation and Dead Cell Discrimination Kit (# 130-091-163) for cell fixation and flow cytometric exclusion of dead cells.

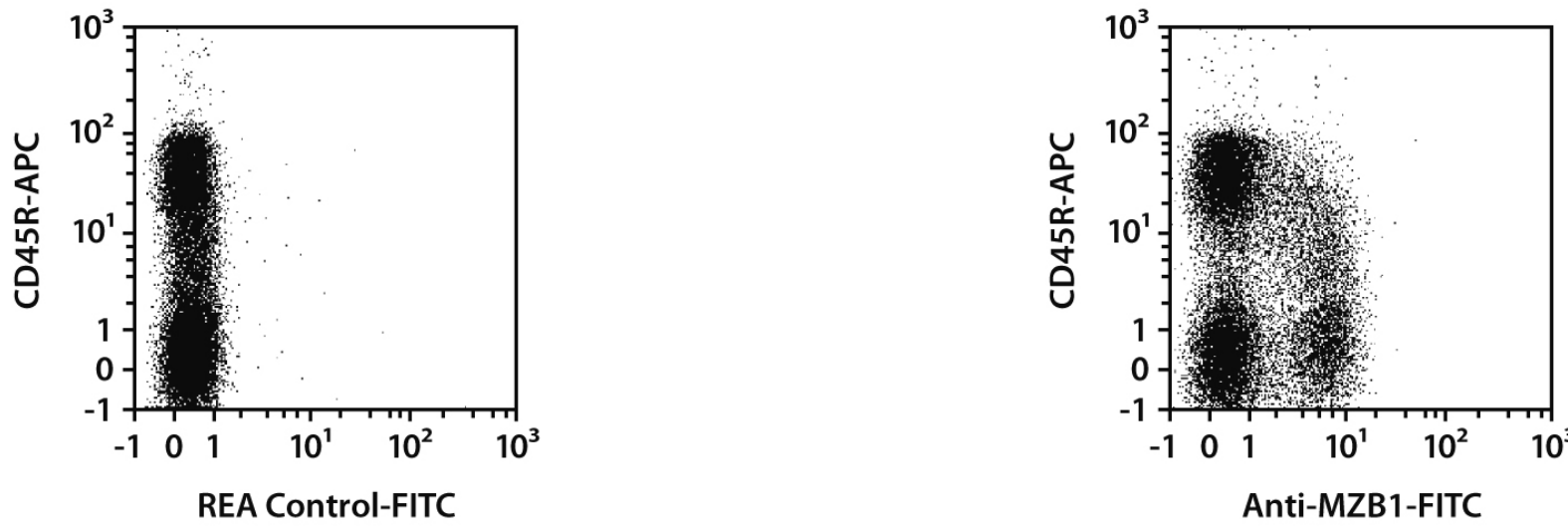
Protocol for cell surface staining

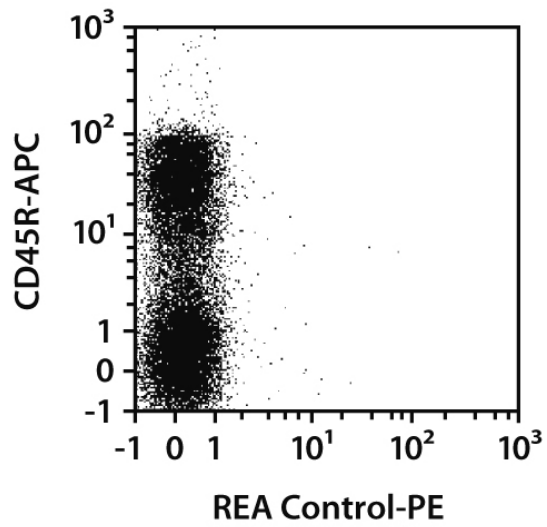
- The recommended antibody dilution for labeling of cells and subsequent analysis by flow cytometry is 1:50 for up to 10^6 cells/100 µL.
- Volumes given below are for up to 10^6 nucleated cells. When working with fewer than 10^6 cells, use the same volumes as indicated. When working with higher cell numbers, scale up all reagent volumes and total volumes accordingly.

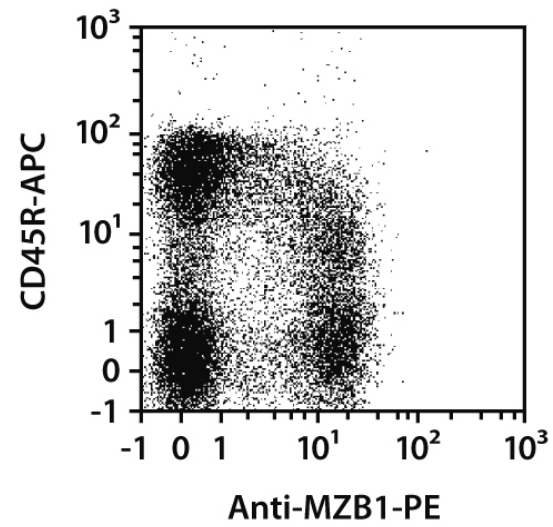
1. Determine cell number.
2. Centrifuge cell suspension at 300×g for 10 minutes. Aspirate supernatant completely.
3. Resuspend up to 10^6 nucleated cells per 98 µL of buffer.
4. Add 2 µL of the antibody.
5. Mix well and incubate for 10 minutes in the dark in the refrigerator (2−8 °C).
   Note: Higher temperatures and/or longer incubation times may lead to non-specific cell labeling. Working on ice requires increased incubation times.
6. Wash cells by adding 1−2 mL of buffer and centrifuge at 300×g for 10 minutes. Aspirate supernatant completely.
7. (Optional) If biotinylated antibody was used, resuspend the cell pellet in buffer and stain with fluorochrome-conjugated anti-biotin antibody according to the manufacturer's recommendations.
8. Resuspend cell pellet in a suitable amount of buffer for analysis by flow cytometry or fluorescence microscopy.

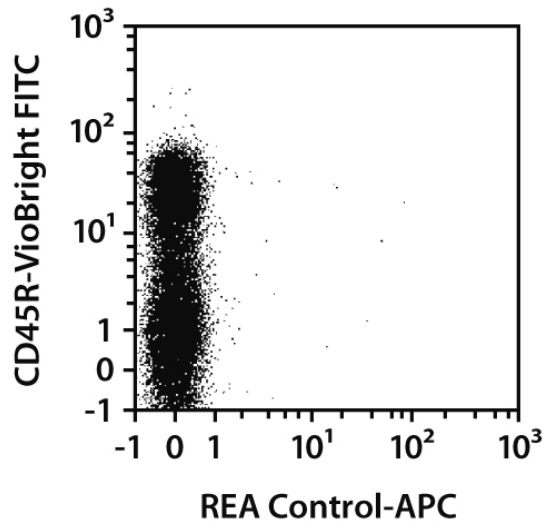
Examples of immunofluorescent staining

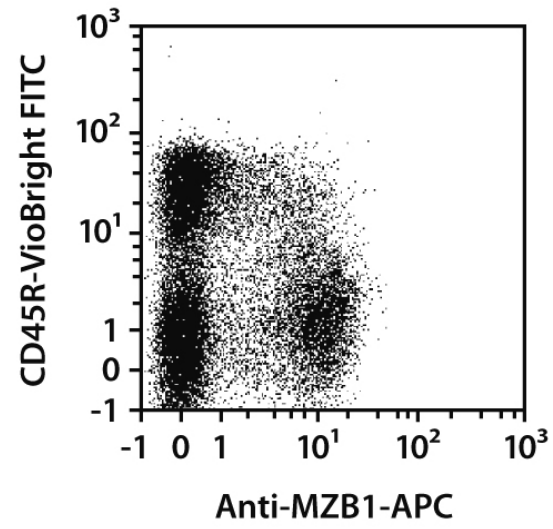
Splenocytes from Wistar rats were stained with Anti-MZB1 antibodies or with the corresponding REA Control antibodies (left image) as well as with CD45R antibodies. Flow cytometry was performed using the MACSQuant®Analyzer. Cell debris and dead cells were excluded from the analysis based on scatter signals and propidium iodide fluorescence.

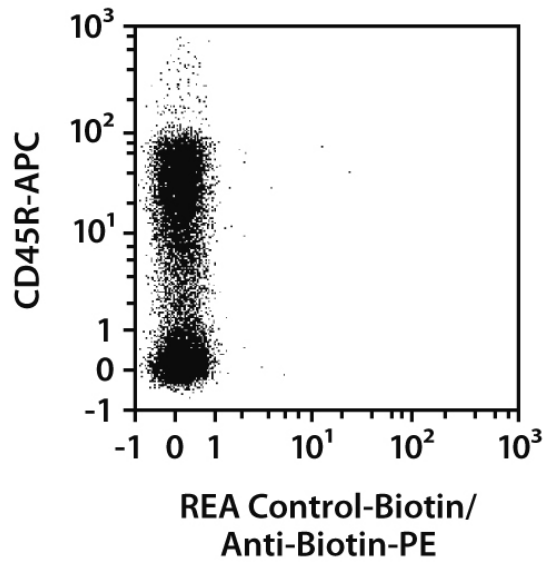


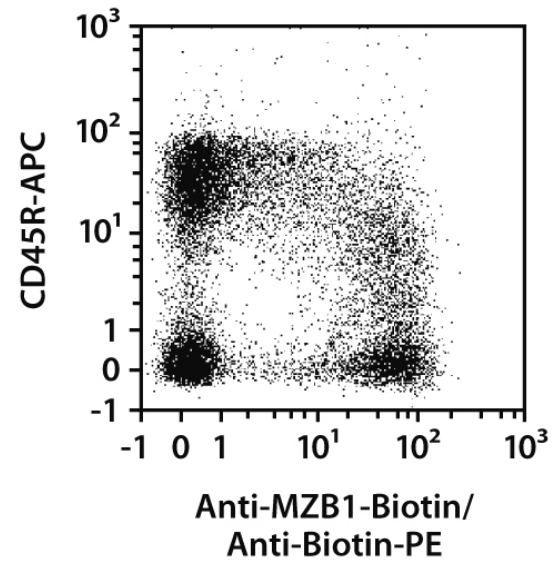












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