CD45 antibodies, mouse

For research use only

9 µg equal 60 tests, 30 µg equal 200 tests. One test corresponds to labeling of 10^6 cells.

Product	Content	Order no.
CD45-FITC	9 µg in 300 µL	130-102-778
CD45-FITC	30 µg in 1 mL	130-102-491
CD45-PE	9 µg in 300 µL	130-102-781
CD45-PE	30 µg in 1 mL	130-102-596
CD45-APC	9 µg in 300 µL	130-102-783
CD45-APC	30 µg in 1 mL	130-102-544
CD45-VioBlue	9 µg in 300 µL	130-102-775
CD45-VioBlue	30 µg in 1 mL	130-102-430
CD45-VioGreen	9 µg in 300 µL	130-102-776
CD45-VioGreen	30 µg in 1 mL	130-102-412
CD45-PerCP	9 µg in 300 µL	130-102-785
CD45-PerCP	30 µg in 1 mL	130-102-469
CD45-PE-Vio770	9 µg in 300 µL	130-105-505
CD45-PE-Vio770	30 µg in 1 mL	130-105-462
CD45-APC-Vio770	9 µg in 300 µL	130-105-506
CD45-APC-Vio770	30 µg in 1 mL	130-105-463
CD45-PerCP-Vio700	30 µg in 1 mL	130-102-238
CD45-Biotin	30 µg in 1 mL	130-101-952

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	CD45
Clone	30F11
Isotype	rat IgG2bκ
Isotype control	Rat IgG2b – isotype control antibodies
Alternative names of antigen	Ptprc, B220, loc, CD45R, L-CA, Ly-5, Lyt-4, T200, CD45
Molecular mass of antigen [kDa]	142
Distribution of antigen	B cells, basophils, dendritic cells, granulocytes, hematopoietic stem cells, Langerhans cells, leukocytes, lymphocytes, macrophages, mast cells, monocytes, plasma cells, T cells, thymocytes

Product format	Antibodies are supplied in buffer containing stabilizer and 0.05% sodium azide.
Fixation	The antibody is suited for staining of formaldehyde-fixed cells.
Storage	Store protected from light at 2–8 °C. Do not freeze.

Clone 30F11 recognizes the mouse CD45 antigen (Ly-5, leukocyte common antigen) which is expressed at high levels on all cells of hematopoietic origin except for erythrocytes. The CD45 antibody clone 30F11 reacts with all CD45 isoforms. CD45 (Ly-5, leukocyte common antigen) can be used to discriminate leukocytes from nonhematopoietic cells.

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) FcR Blocking Reagent, mouse (# 130-092-575) to avoid Fc receptor–mediated antibody labeling.
- (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.

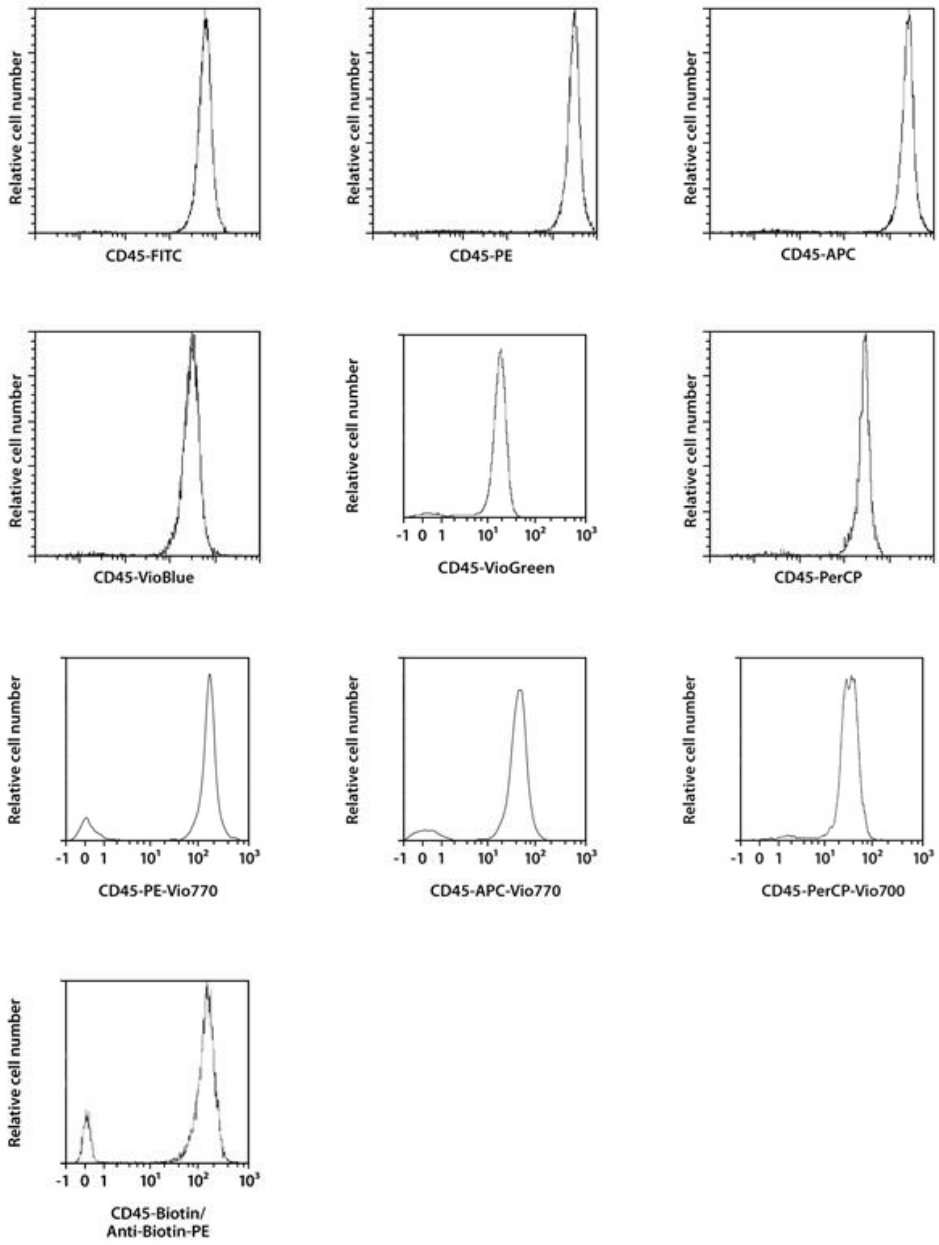
Protocol for cell surface staining

- The recommended antibody dilution for labeling of cells and subsequent analysis by flow cytometry is 1:10 for up to 10^6 cells/50 µL of buffer.
- 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 (e.g. for 2×10^6 nucleated cells, use twice the volume of all indicated reagent volumes and total volumes).

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 45 µL of buffer.
4. Add 5 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 100 µL of buffer, add 10 µL of fluorochrome-conjugated anti-biotin antibody, and continue as described in steps 5 and 6.
8. Resuspend cell pellet in a suitable amount of buffer for analysis by flow cytometry or fluorescence microscopy.

Examples of immunofluorescent staining

Mouse splenocytes were stained with CD45 antibodies and analyzed by flow cytometry using the MACSQuant® Analyzer. Cell debris and dead cells were excluded from the analysis based on scatter signals and propidium iodide fluorescence or 4',6-diamidino-2-phenylindole (DAPI) fluorescence, as in the case of CD45-PerCP-Vio700.



Warranty

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