CD19 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.
CD19-FITC[1]	9 µg in 300 µL	130-102-822
CD19-FITC[1]	30 µg in 1 mL	130-102-494
CD19-VioBright FITC[1]	9 µg in 300 µL	130-105-171
CD19-VioBright FITC[1]	30 µg in 1 mL	130-105-110
CD19-PE	9 µg in 300 µL	130-102-824
CD19-PE	30 µg in 1 mL	130-102-598
CD19-APC	9 µg in 300 µL	130-102-825
CD19-APC	30 µg in 1 mL	130-102-546
CD19-VioBlue	9 µg in 300 µL	130-103-139
CD19-VioBlue	30 µg in 1 mL	130-102-451
CD19-PE-Vio770	9 µg in 300 µL	130-102-843
CD19-PE-Vio770	30 µg in 1 mL	130-102-361
CD19-APC-Vio770[1]	9 µg in 300 µL	130-102-826
CD19-APC-Vio770[1]	30 µg in 1 mL	130-102-310
CD19-PerCP-Vio700	30 µg in 1 mL	130-102-237
CD19-Biotin	9 µg in 300 µL	130-102-114
CD19-Biotin	30 µg in 1 mL	130-101-951

[1]Not recommended for cells that are labeled with MACS MicroBeads using the same antigen.

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	CD19
Clone	6D5
Isotype	rat IgG2aκ
Isotype control	Rat IgG2a – isotype control antibodies
Alternative names of antigen	B4
Molecular mass of antigen [kDa]	58
Distribution of antigen	B cells, dendritic cells
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 6D5 recognizes the mouse CD19 antigen, a type I transmembrane glycoprotein expressed on B cells throughout their development from the early pro-B cell through the mature B cell stages. Its expression is down-regulated during terminal differentiation to plasma cells. CD19 associates with complement receptor CD21 and with CD81 on the cell surface of mature B cells, thereby forming a multi-molecular complex which signals synergistically to membrane IgM. It is also expressed on follicular dendritic cells and peritoneal mast 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.

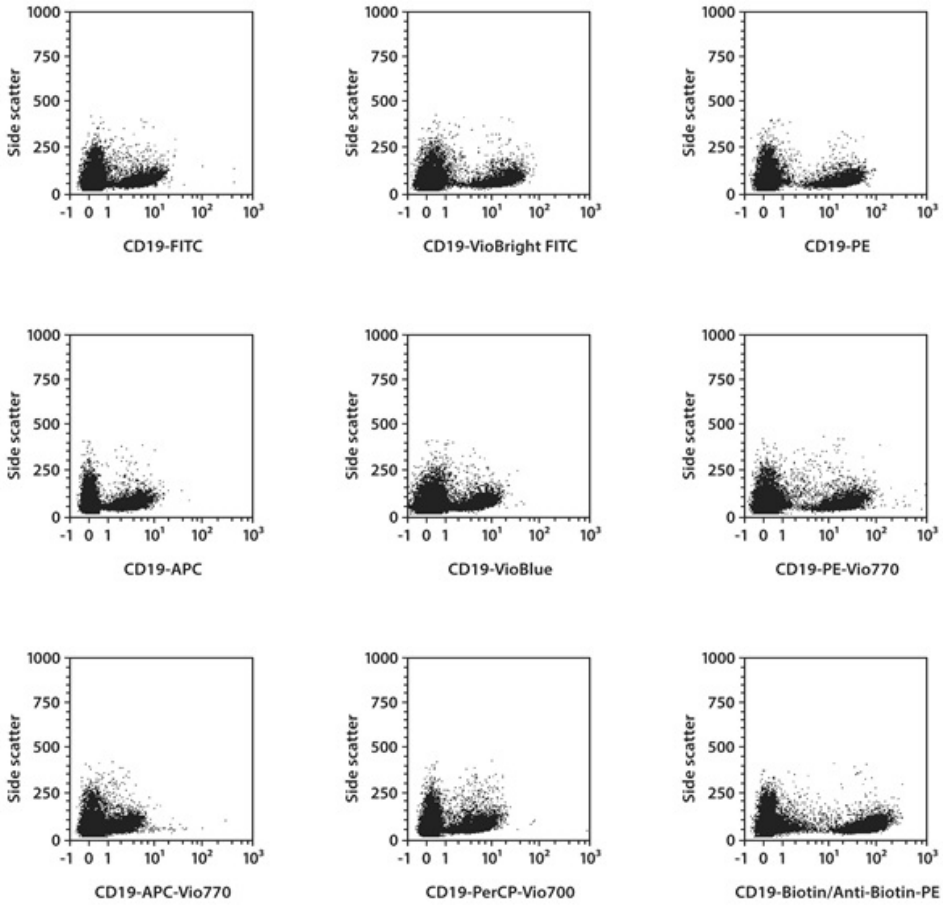
Protocol for cell surface staining

- 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 CD19 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 tandem-conjugates.



Warranty

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