CD3ε 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.
CD3ε-FITC	9 µg in 300 µL	130-102-791
CD3ε-FITC	30 µg in 1 mL	130-102-496
CD3ε-PE	9 µg in 300 µL	130-102-792
CD3ε-PE	30 µg in 1 mL	130-102-600
CD3ε-APC	9 µg in 300 µL	130-102-793
CD3ε-APC	30 µg in 1 mL	130-102-549
CD3ε-VioBlue	9 µg in 300 µL	130-102-789
CD3ε-VioBlue	30 µg in 1 mL	130-102-441
CD3ε-PE-Vio770	9 µg in 300 µL	130-102-794
CD3ε-PE-Vio770	30 µg in 1 mL	130-102-359
CD3ε-APC-Vio770	9 µg in 300 µL	130-103-280
CD3ε-APC-Vio770	30 µg in 1 mL	130-102-306
CD3ε-PerCP-Vio700	9 µg in 300 µL	130-103-855
CD3ε-PerCP-Vio700	30 µg in 1 mL	130-103-785
CD3ε-Biotin	9 µg in 300 µL	130-101-990
CD3ε-Biotin	30 µg in 1 mL	130-101-940

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	CD3ε
Clone	145-2C11
Isotype	hamster IgG1κ
Alternative names of antigen	CD3e, CD3epsilon, T3E, T3
Molecular mass of antigen [kDa]	19
Distribution of antigen	NK cells, T cells, thymocytes
Product format	Antibodies 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 145-2C11 specifically recognizes the ε subunit of the mouse CD3 antigen. CD3 is a 20 kDa transmembrane protein and is part of the TCR complex. Along with the γ and δ subunits of CD3, the ε chain is required for proper assembly and expression of the TCR complex. CD3ε is expressed on thymocytes, mature T lymphocytes, and NKT cells.
Antibody clone 145-2C11 can be used for T cell activation and expansion.

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.

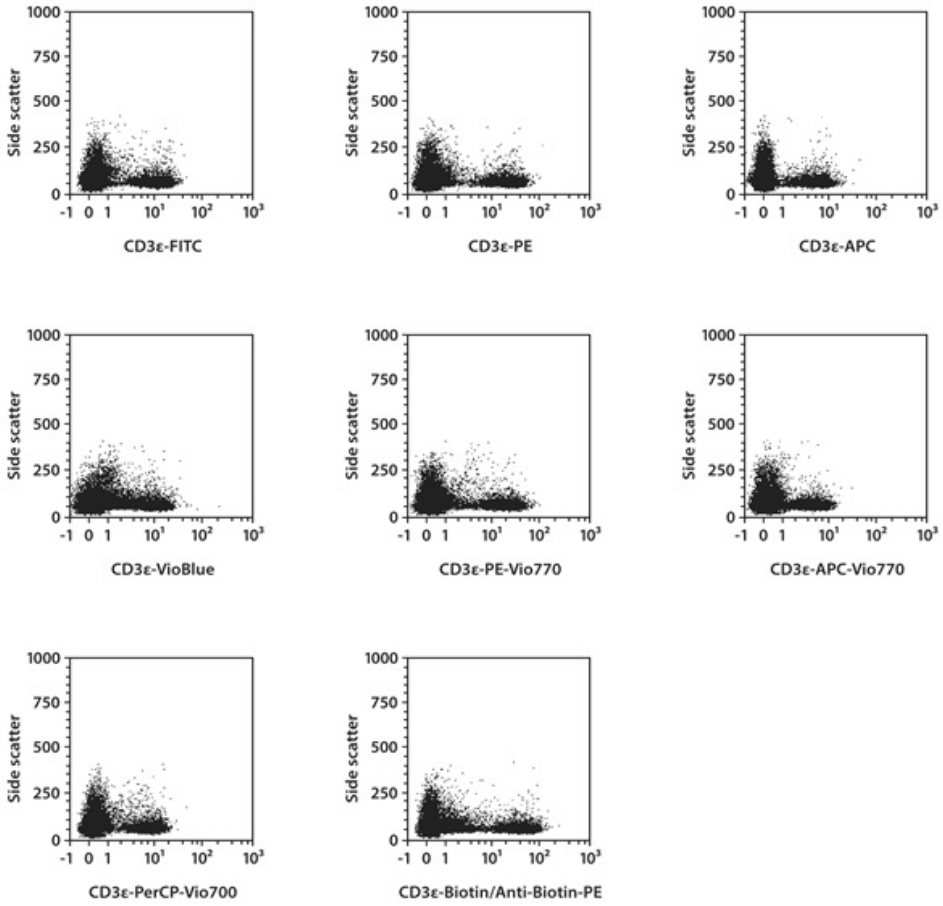
Protocol for cell surface staining

- 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 CD3ε antibodies and analyzed by flow cytometry. Cell debris and dead cells were excluded from the analysis based on scatter signals and PI fluorescence or 4',6-diamidino-2-phenylindole (DAPI) fluorescence, as in the case of tandem conjugates.



Warranty

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