CD204 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.
CD204-FITC	9 µg in 300 µL	130-103-023
CD204-FITC	30 µg in 1 mL	130-102-251
CD204-PE	9 µg in 300 µL	130-103-018
CD204-PE	30 µg in 1 mL	130-102-328
CD204-APC	9 µg in 300 µL	130-103-017
CD204-APC	30 µg in 1 mL	130-102-285
CD204-VioBlue	9 µg in 300 µL	130-103-019
CD204-VioBlue	30 µg in 1 mL	130-102-195
CD204-PE-Vio770	9 µg in 300 µL	130-105-574
CD204-PE-Vio770	30 µg in 1 mL	130-105-522
CD204-APC-Vio770	9 µg in 300 µL	130-105-575
CD204-APC-Vio770	30 µg in 1 mL	130-105-523
CD204-Biotin	9 µg in 300 µL	130-102-043
CD204-Biotin	30 µg in 1 mL	130-101-871

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	CD204
Clone	REA148
Isotype	recombinant human IgG1
Isotype control	REA Control antibodies
Alternative names of antigen	MSR1, MRS-A, MSR, SR-AI, SR-AII, SCARA1, Scvr, SRA
Molecular mass of antigen [kDa]	50
Distribution of antigen	macrophages
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 REA148 recognizes mouse CD204, also known as MSR 1 or SRA (murine scavenger receptor class A type I and II). It supports the recognition and ingestion of apoptotic cells and in particular it plays a supporting role in apoptotic cell clearance in embryogenesis. CD204 is mainly expressed on tissue macrophages.
Additional Information: Clone REA148 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.

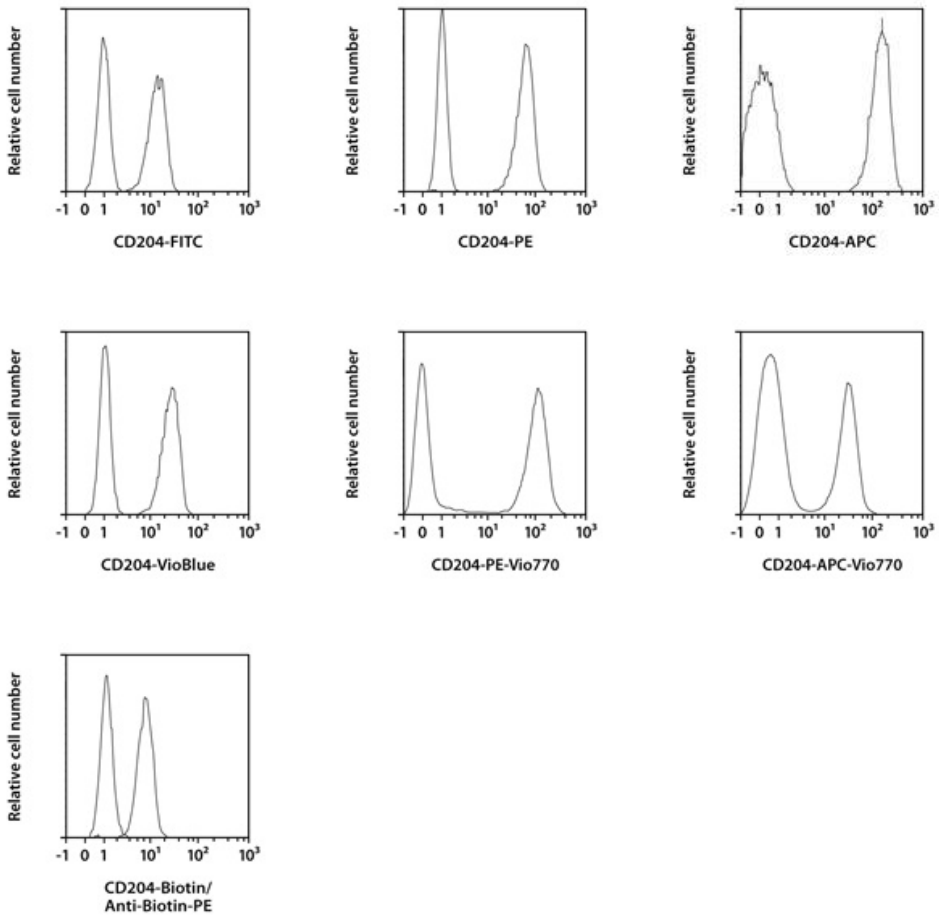
Protocol for cell surface staining

- The recommended antibody dilution for labeling of cells and subsequent analysis by flow cytometry is 1:10 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

Cells from mouse peritoneal lavage fluid were stained with CD204 antibodies and analyzed by flow cytometry using the MACSQuant® Analyzer. Cells labeled with CD204-Biotin were stained with Anti-Biotin-PE. Macrophages were pre-gated for the analysis, according to the scatter properties. The specificity of the conjugated antibodies was confirmed by blocking the binding to the ligand, using pure unconjugated antibodies (left peak). . 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.



References

1. **Komohara, Y. *et al.*** (2005) Clearance of apoptotic cells is not impaired in mouse embryos deficient in class A scavenger receptor types I and II (CD204). Dev. Dyn. 232(1): 67–74.

Warranty

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