CD181 (CXCR1) antibodies, human

For research use only

6
One test corresponds to labeling of up to 10 cells in a total volume of 100 µL

Product	Content	Order no.
CD181 (CXCR1)-FITC	for 30 tests	130-115-947
CD181 (CXCR1)-FITC	for 100 tests	130-115-878
CD181 (CXCR1)-PE	for 30 tests	130-115-948
CD181 (CXCR1)-PE	for 100 tests	130-115-879
CD181 (CXCR1)-APC	for 30 tests	130-115-949
CD181 (CXCR1)-APC	for 100 tests	130-115-880
CD181 (CXCR1)-VioBlue	for 30 tests	130-115-955
CD181 (CXCR1)-VioBlue	for 100 tests	130-115-886
CD181 (CXCR1)-VioGreen	for 30 tests	130-115-954
CD181 (CXCR1)-VioGreen	for 100 tests	130-115-885
CD181 (CXCR1)-PE-Vio615	for 30 tests	130-115-956
CD181 (CXCR1)-PE-Vio615	for 100 tests	130-115-887
CD181 (CXCR1)-PE-Vio770	for 30 tests	130-115-950
CD181 (CXCR1)-PE-Vio770	for 100 tests	130-115-881
CD181 (CXCR1)-APC-Vio770	for 100 tests	130-115-882
CD181 (CXCR1)-PerCP-Vio700	for 30 tests	130-115-952
CD181 (CXCR1)-PerCP-Vio700	for 100 tests	130-115-883

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	CD181 (CXCR1)
Clone	REA958
Isotype	recombinant human IgG1
Isotype control	REA Control (S) antibodies
Alternative names of antigen	CXCR1, C-C, C-C-CKR-1, CDw128a, CKR-1, CMKAR1, IL8R1, IL8RA, IL8RBA
Entrez Gene ID	3577
Molecular mass of antigen [kDa]	40

Distribution of antigen	granulocytes, endothelial cells, lymphocytes, mast cells, megakaryocytes, monocytes, NK cells, oligodendrocytes
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 REA958 recognizes the human CD181 antigen, a multi-pass membrane protein also known as C-X-C chemokine receptor type 1 (CXCR1) or IL-8 receptor A (IL-8RA). CD181 is expressed as homodimer or heterodimer with CD182 (CXCR2) and found on granulocytes, NK cells, a subset of T lymphocytes, mast cells, monocytes, endothelial cells, megakarocytes, and oligodendrocytes. It is one of two high-affinity receptors for IL-8, a major mediator of immune and inflammatory responses implicated in many disorders, including tumor growth. IL-8, released in response to inflammatory stimuli, binds to the extracellular part of CD181. The ligand-activated intracellular signaling pathways results in neutrophil migration to the site of inflammation. Additional information: Clone REA958 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.

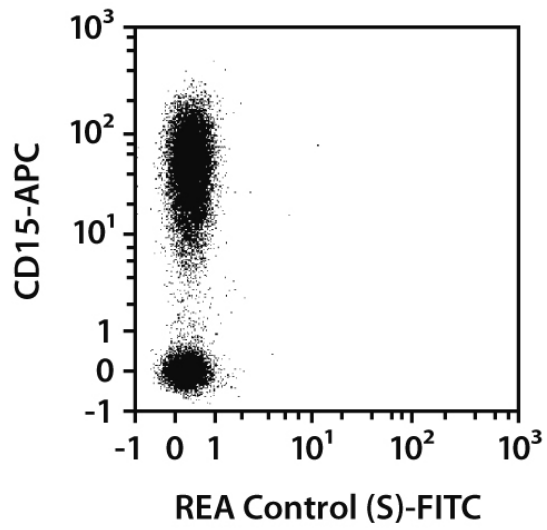
Protocol for cell surface staining

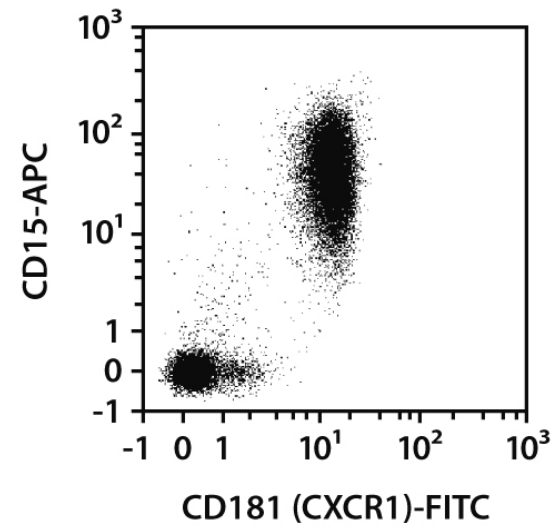
- The recommended antibody dilution for labeling of cells and subsequent analysis by flow cytometry is 1:50 for up to 10^6 cells/100 µL.
- Volumes given below are for up to 10^6 nucleated cells. When working with fewer than 10^6 cells, use the same volumes as indicated. When working with higher cell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

Human peripheral blood cells after erythrocyte lysis were stained with CD181 (CXCR1) antibodies or with the corresponding REA Control (S) antibodies (left images) as well as with CD15 antibodies and analyzed by flow cytometry using the MACSQuant® Analyzer. The Tandem Signal Enhancer has been used to increase binding specificity of tandem-dye–conjugated antibodies. 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.


CD15-APC
REA Control (S)-FITC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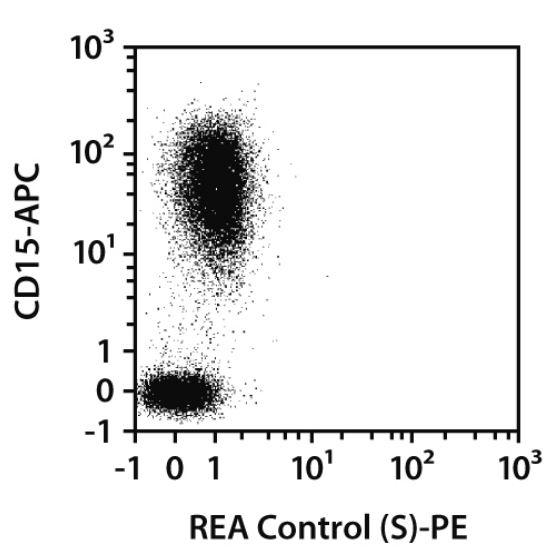
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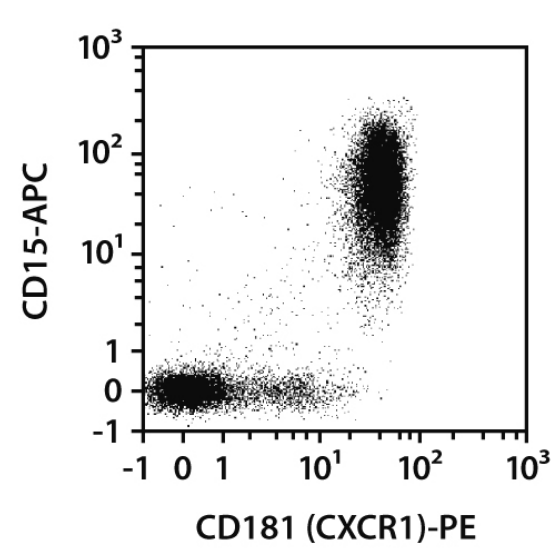
REA Control (S)-PE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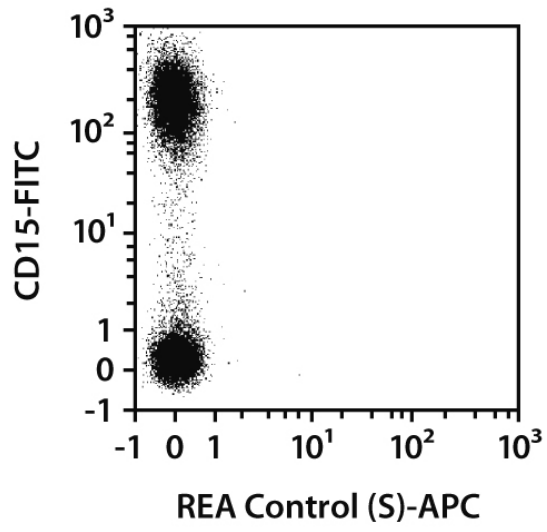
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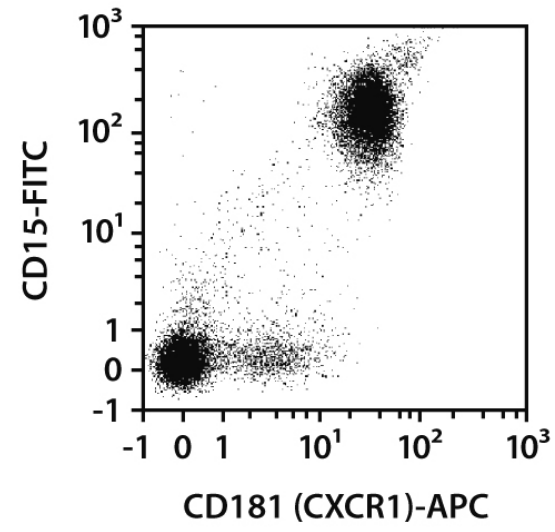
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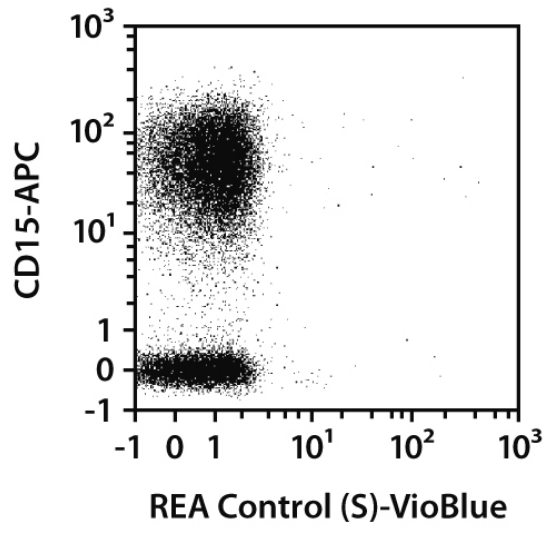
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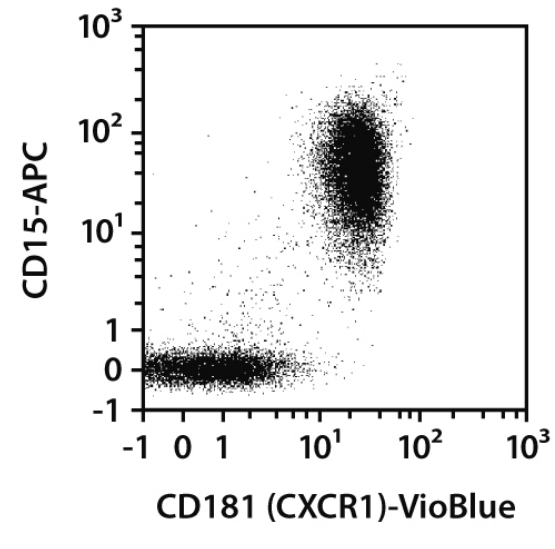
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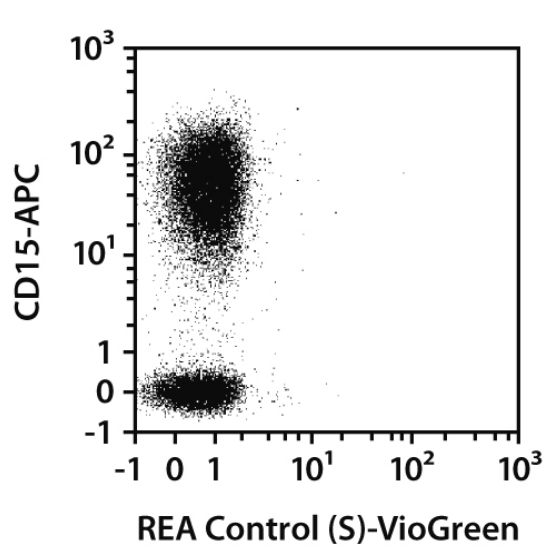
CD181 (CXCR1)-VioBlue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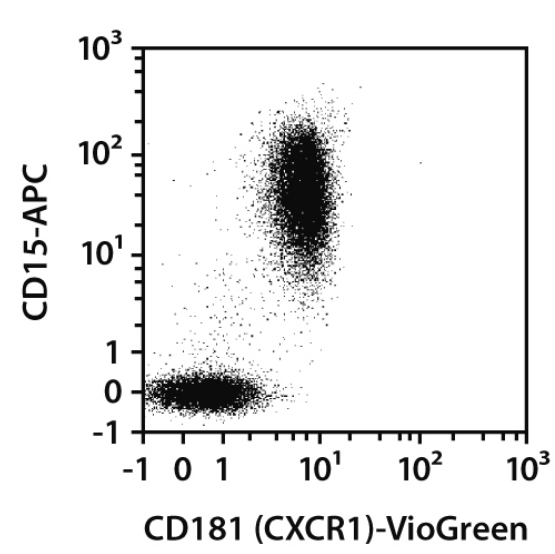
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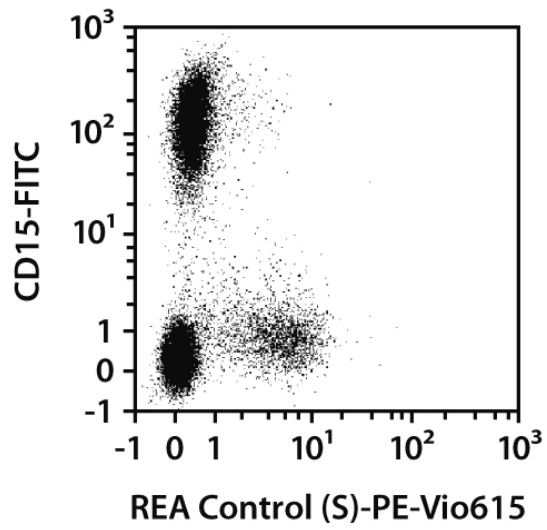
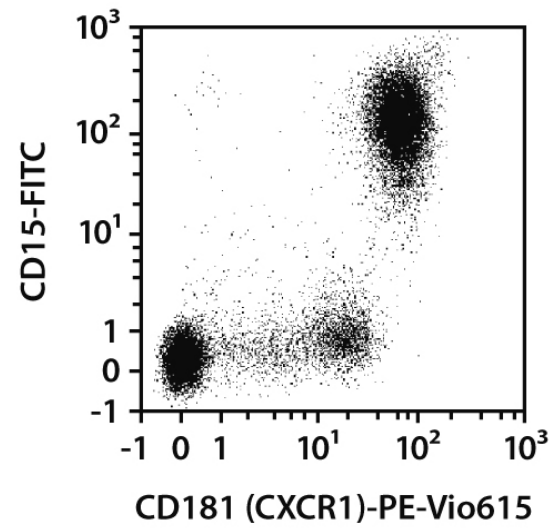
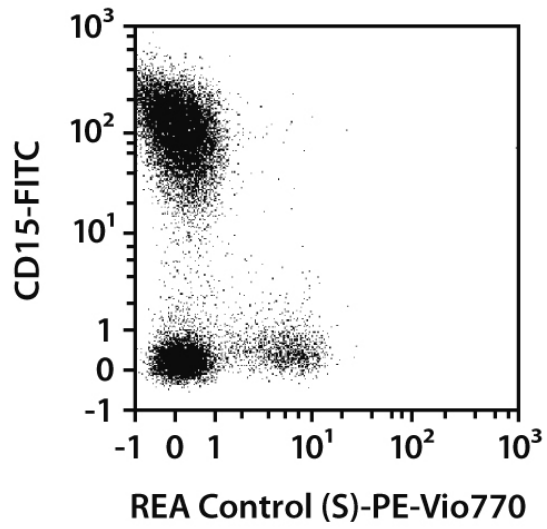
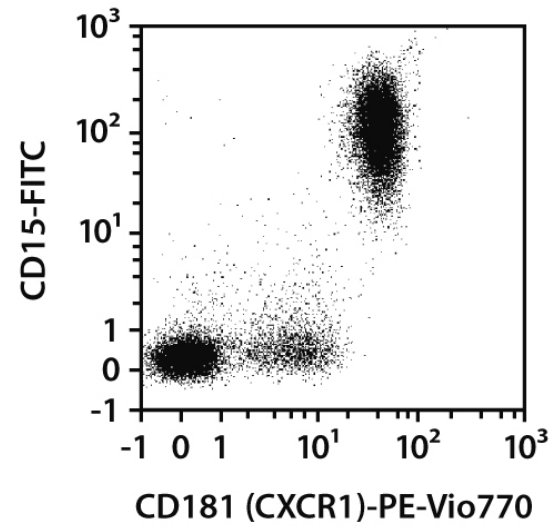
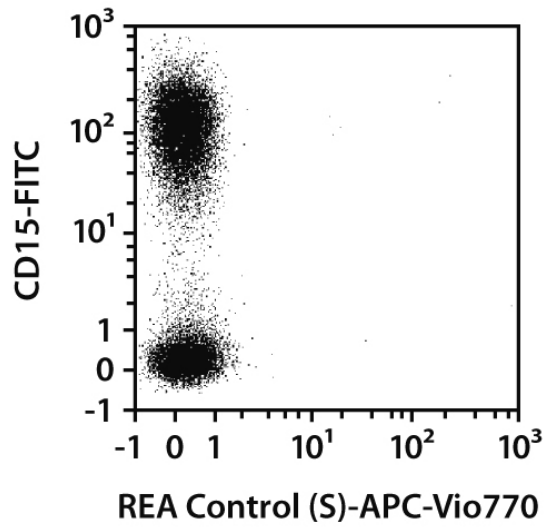
CD181 (CXCR1)-VioGreen

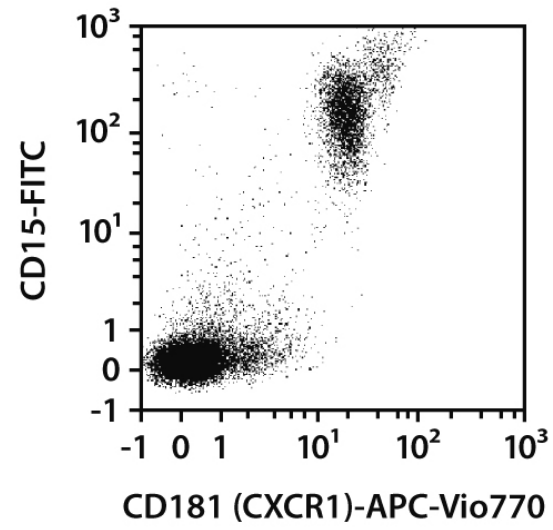


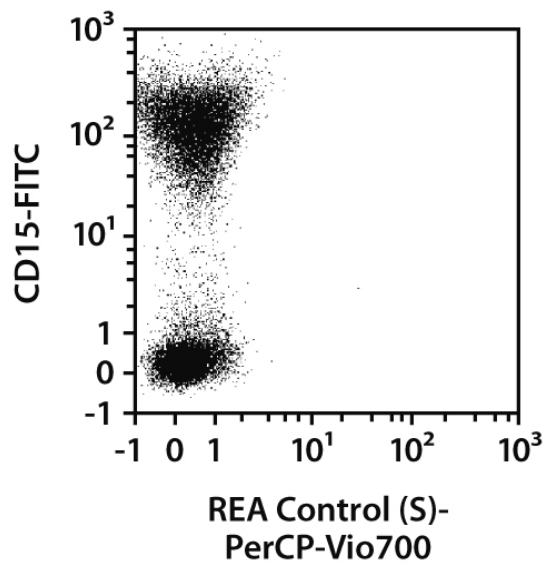


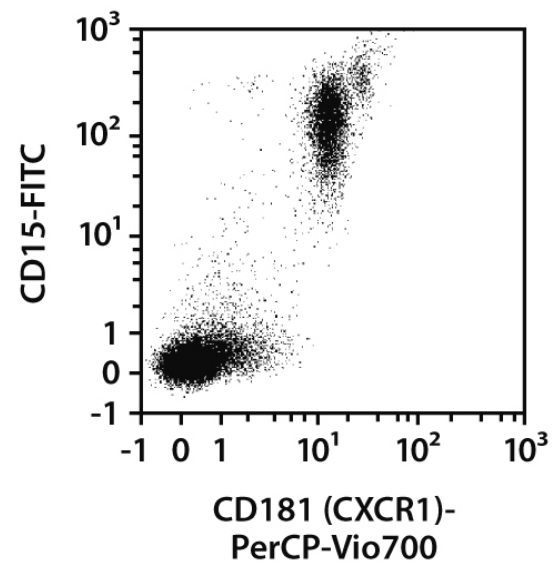












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