Anti-HLA-DR 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.
Anti-HLA-DR-Biotin	for 30 tests	130-111-940
Anti-HLA-DR-FITC	for 30 tests	130-111-941
Anti-HLA-DR-FITC	for 100 tests	130-111-788
Anti-HLA-DR-PE	for 30 tests	130-111-942
Anti-HLA-DR-PE	for 100 tests	130-111-789
Anti-HLA-DR-APC	for 30 tests	130-111-943
Anti-HLA-DR-APC	for 100 tests	130-111-790
Anti-HLA-DR-VioBlue	for 30 tests	130-111-947
Anti-HLA-DR-VioBlue	for 100 tests	130-111-794
Anti-HLA-DR-VioGreen	for 30 tests	130-111-948
Anti-HLA-DR-VioGreen	for 100 tests	130-111-795
Anti-HLA-DR-PE-Vio615	for 30 tests	130-111-950
Anti-HLA-DR-PE-Vio615	for 100 tests	130-111-797
Anti-HLA-DR-PE-Vio770	for 30 tests	130-111-944
Anti-HLA-DR-PE-Vio770	for 100 tests	130-111-791
Anti-HLA-DR-APC-Vio770	for 30 tests	130-111-945
Anti-HLA-DR-APC-Vio770	for 100 tests	130-111-792
Anti-HLA-DR-PerCP-Vio700	for 30 tests	130-111-946
Anti-HLA-DR-PerCP-Vio700	for 100 tests	130-111-793
Anti-HLA-DR-Biotin	for 100 tests	130-111-787

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	HLA-DR
Clone	REA805
Isotype	recombinant human IgG1
Isotype control	REA Control (S) antibodies
Alternative names of antigen	HLA-DRA, HLA-DRB1, HLA-DRB3, HLA-DRB4, HLA-DRB5

Entrez Gene ID	3123, 3122, 3127, 3126, 3125
Molecular mass of antigen [kDa]	27-33
Cross-reactivity	cynomolgus monkey (*Macaca fascicularis*), african green monkey (*Chlorocebus aethiops*), baboon, chimpanzee (*Pan troglodytes*), common marmoset (*Callithrix jacchus*), cotton-top tamarin (*Saguinus oedipus*), pigtail monkey (*Macaca nemestrina*)
Distribution of antigen	dendritic cells, B cells, monocytes, macrophages
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 REA805 recognizes the human major histocompatibility (MHC) class II antigen HLA-DR, a heterodimeric cell surface glycoprotein belonging to the Ig superfamiliy. HLA-DR is constitutively expressed on professional antigen-presenting cells like dendritic cells, B cells, and monocytes/macrophages. Its expression is further up-regulated upon activation. On T cells, NK cells, hematopoietic precursor cells, and some epithelial cells the expression of HLA-DR is induced by cell activation. Additional information: Clone REA805 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.

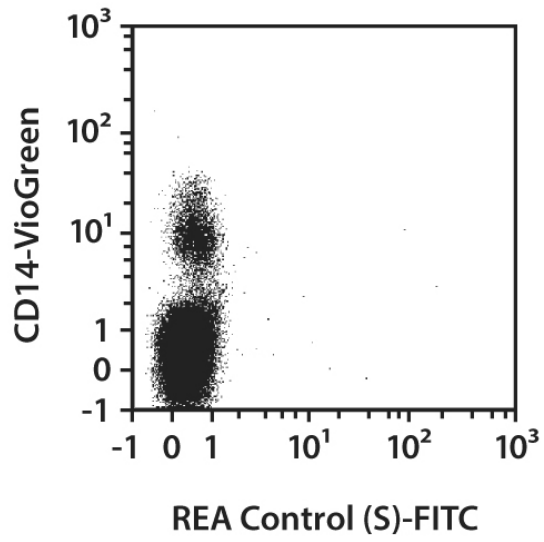
Protocol for cell surface staining

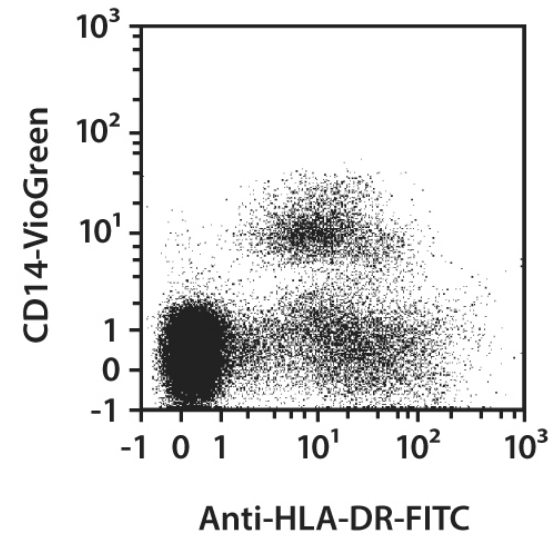
- The recommended antibody dilution for labeling of cells and subsequent analysis by flow cytometry is 1:50 for up to 10^6 cells/100 µL.
- Volumes given below are for up to 10^6 nucleated cells. When working with fewer than 10^6 cells, use the same volumes as indicated. When working with higher cell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

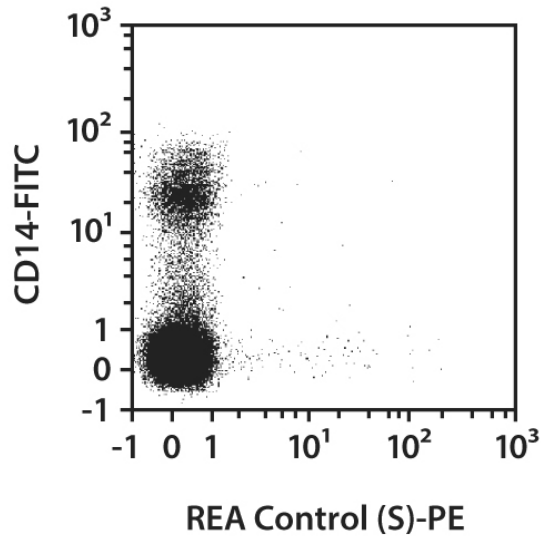
1. Determine cell number.
2. Centrifuge cell suspension at 300×g for 10 minutes. Aspirate supernatant completely.
3. Resuspend up to 10^6 nucleated cells per 98 µL of buffer.
4. Add 2 µL of the antibody.
5. Mix well and incubate for 10 minutes in the dark in the refrigerator (2−8 °C).
   Note: Higher 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.

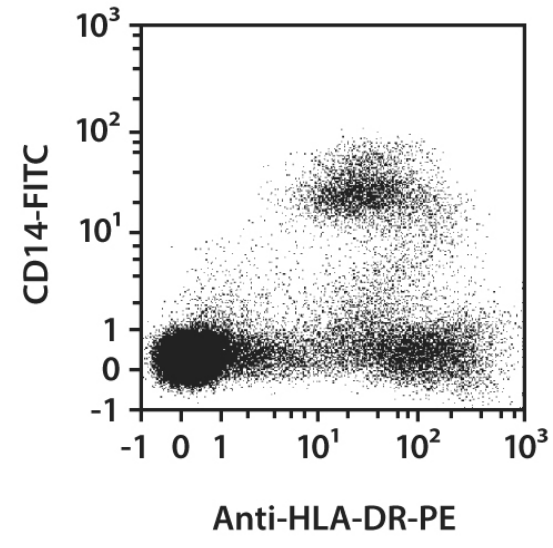
Examples of immunofluorescent staining

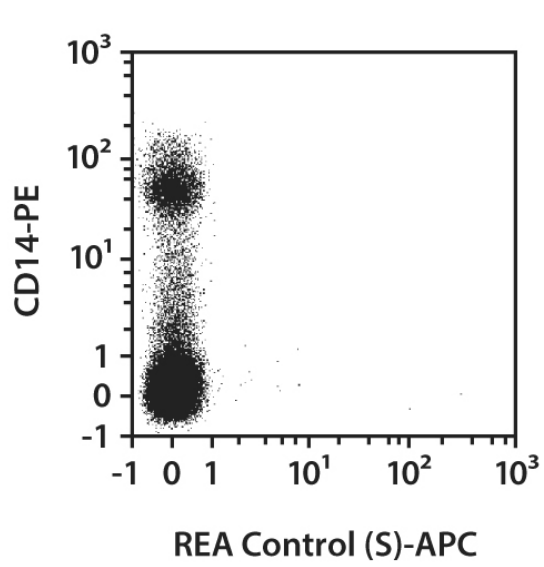
Human peripheral blood mononuclear cells (PBMCs) were stained with Anti-HLA-DR antibodies or with the corresponding REA Control (S) antibodies (left image) as well as with CD14 antibodies. Flow cytometry was performed using the MACSQuant® Analyzer. The Tandem Signal Enhancer has been used to increase 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.

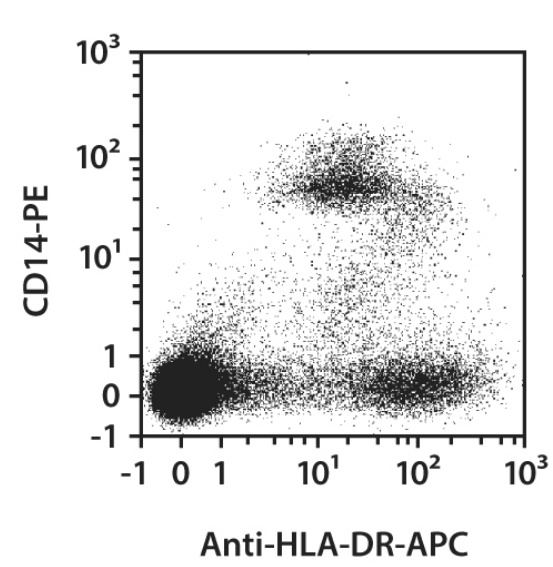


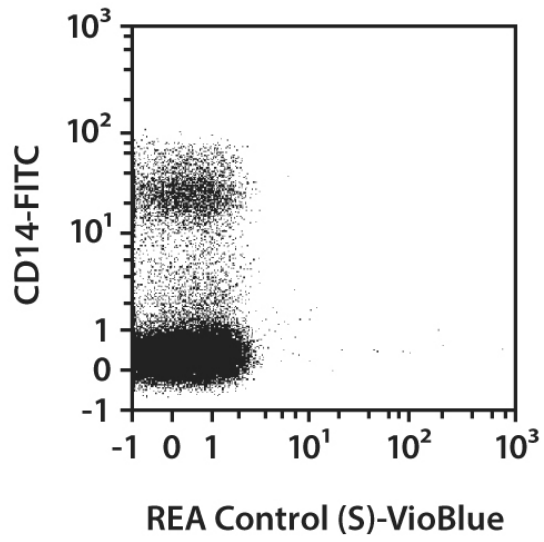


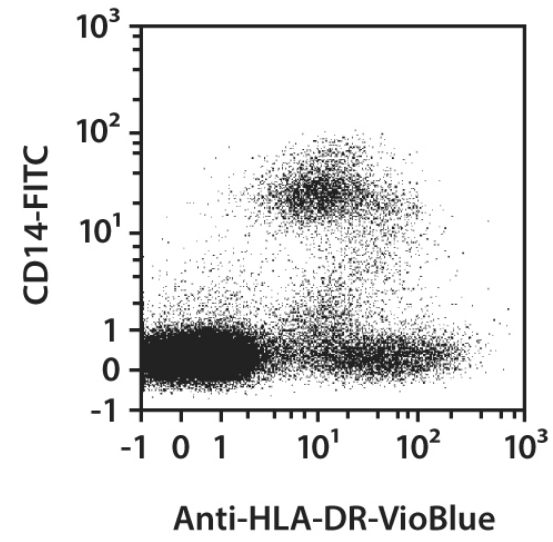


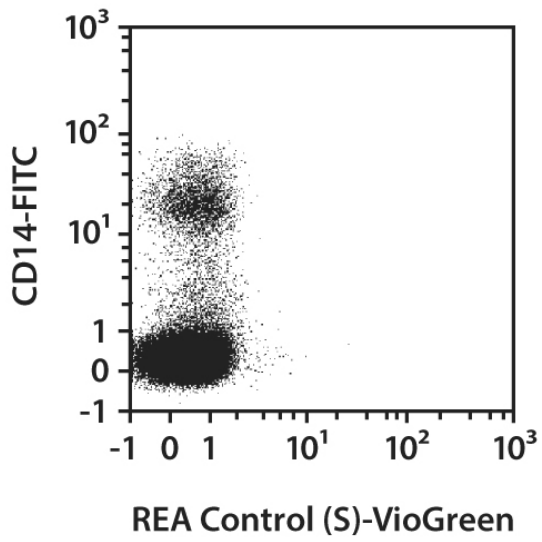


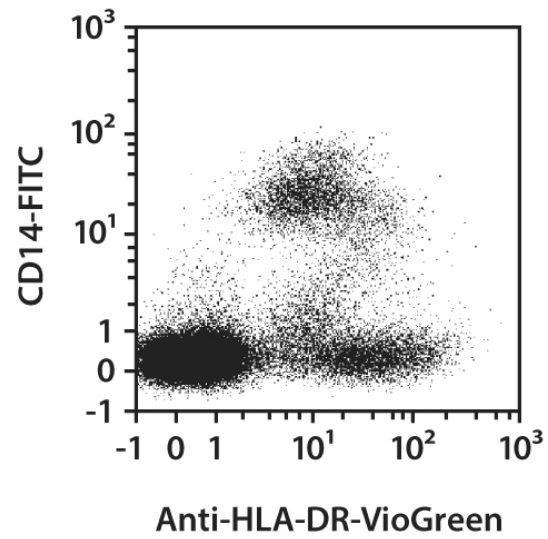









CD14-FITC
REA Control (S)-VioGreen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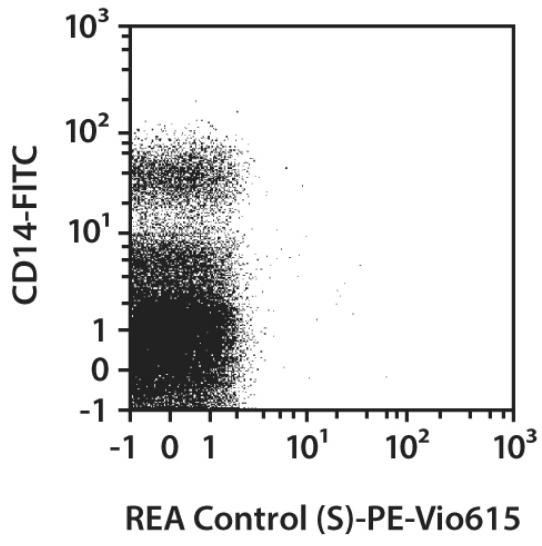
Anti-HLA-DR-VioGreen


CD14-FITC
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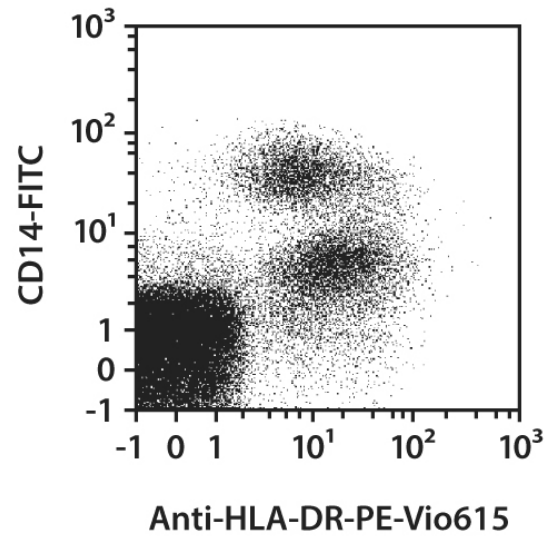
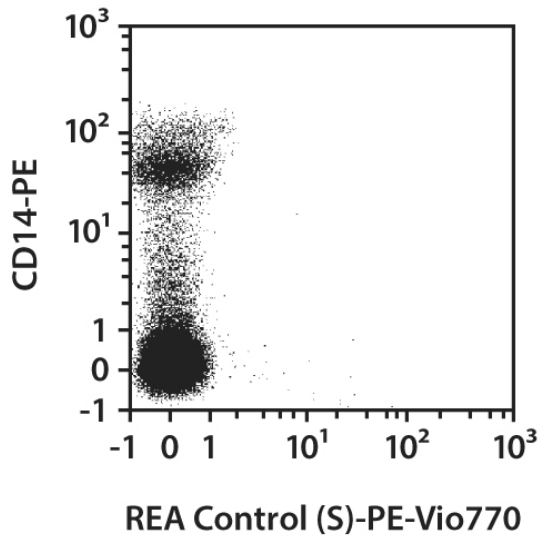

CD14-FITC
Anti-HLA-DR-PE-Vio615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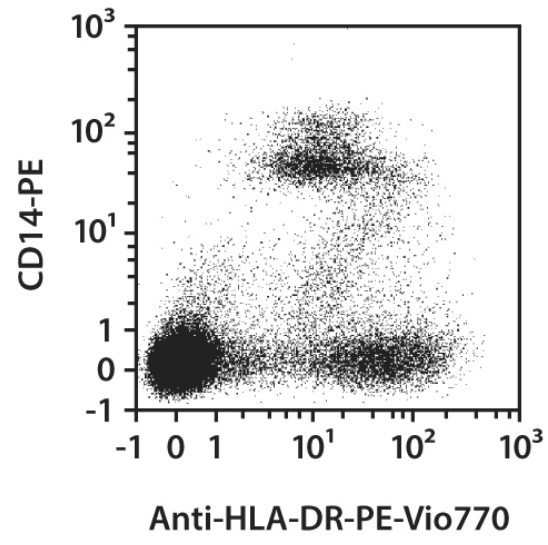
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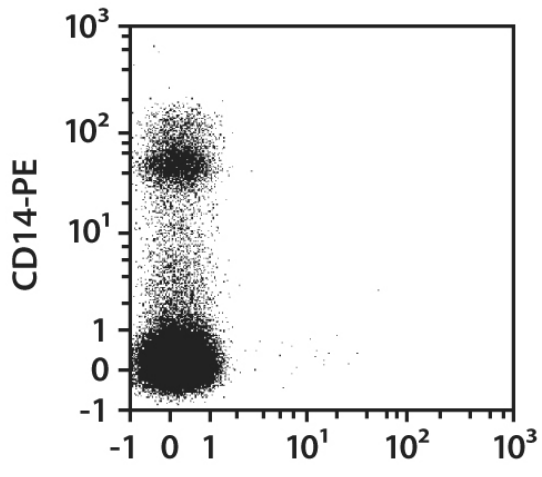
Anti-HLA-DR-PE-Vio770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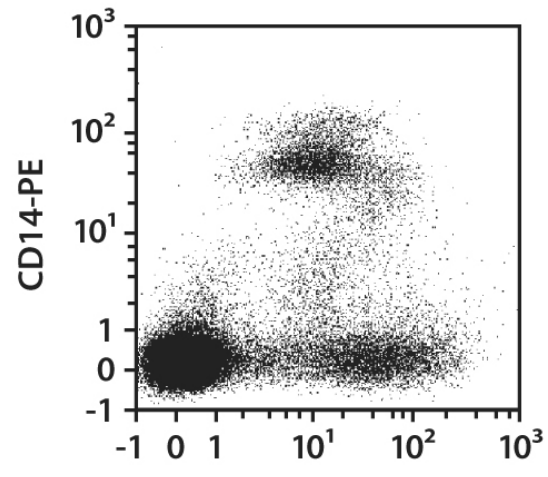
REA Control (S)-
APC-Vio770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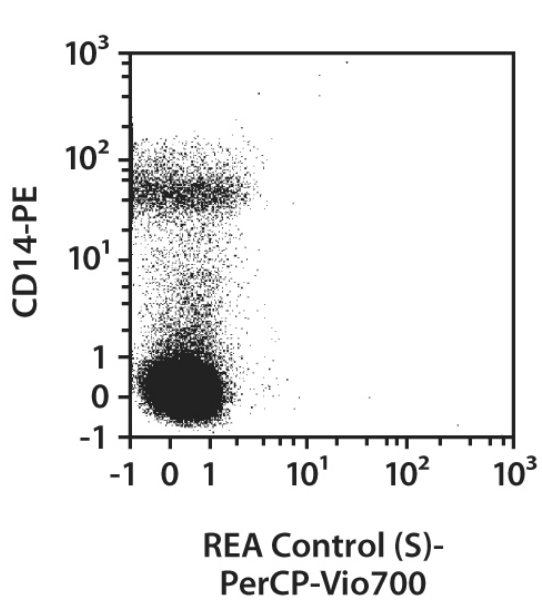
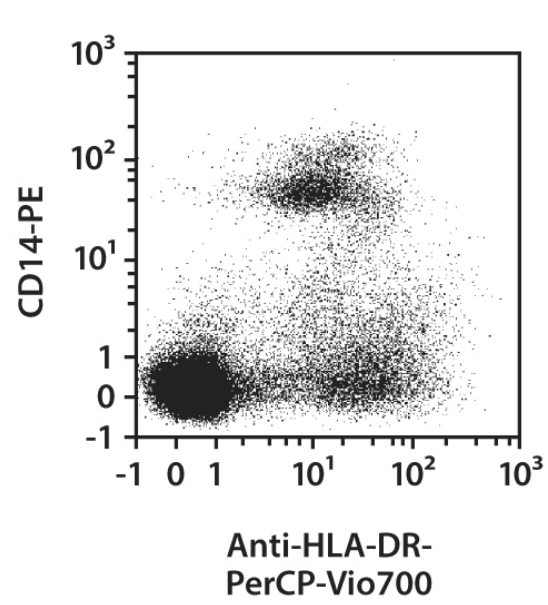
Anti-HLA-DR-APC-Vio770


CD14-PE
REA Control (S)-
PerCP-Vio700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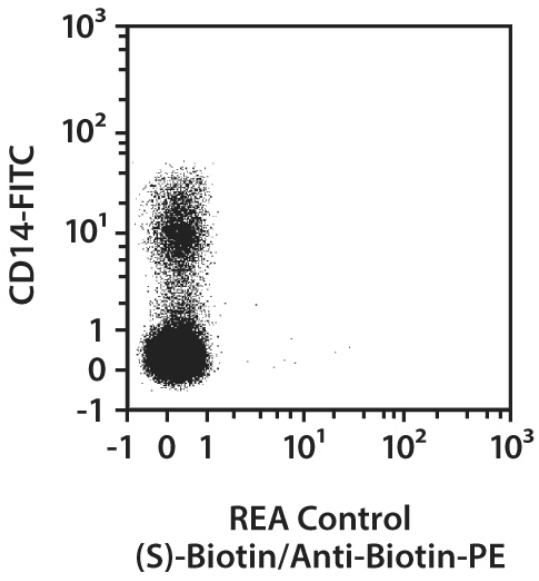
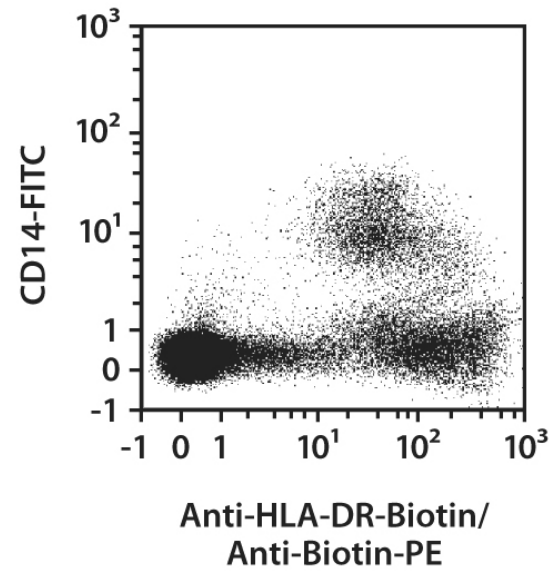
Anti-HLA-DR-
PerCP-Vio700





Warranty

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