PerCP-Cy™5.5 Mouse Anti-Human HLA-DR

**Product Information**

**Material Number:** 552764

**Alternate Name:** MHC class II antigen; HLA class II histocompatibility antigen

**Size:** 50 Tests

**Vol. per Test:** 20 µl

**Clone:** G46-6

**Isotype:** Mouse IgG2a, κ

**Reactivity:**
- QC Testing: Human
- Tested in Development: Rhesus, Cynomolgus, Baboon
- Reported Reactivity: Dog

**Storage Buffer:**
Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**
The G46-6 monoclonal antibody specifically binds to HLA-DR, a major histocompatibility complex (MHC) class II antigen. HLA-DR antigens are encoded by genes within the Human Leukocyte Antigen (HLA) Complex located on chromosome 6. HLA-DR is a transmembrane heterodimeric glycoprotein composed of an α chain (36 kDa) and a β subunit (27 kDa) expressed primarily on antigen presenting cells: B cells, dendritic cells, monocytes, macrophages, and thymic epithelial cells. HLA-DR is also expressed on activated T cells. This molecule plays a major role in mediating cellular interactions during antigen presentation to CD4-positive T cells.

**Flow cytometric analysis of HLA-DR expression on Rhesus macaque (Macaca mulatta) peripheral blood leucocytes.** Rhesus whole blood was stained with either PerCP-Cy™5.5 Mouse IgG2a, κ Isotype Control (Cat. No. 552577; dashed line histogram) or PerCP-Cy™5.5 Mouse Anti-Human HLA-DR (Cat. No. 560652/552764; solid line histogram). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Fluorescent histograms showing expression of HLA-DR (or Ig Isotype control staining) were derived from gated events with the forward and side-light scatter characteristics of intact leucocyte populations.

**Preparation and Storage**
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

**Application Notes**

**Application**

Flow cytometry Routinely Tested

**Suggested Companion Products**

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<th>Name</th>
<th>Size</th>
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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).

2. An isotype control should be used at the same concentration as the antibody of interest.

3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

6. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.

7. PerCP-Cy5.5 is optimized for use with a single argon ion emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.

8. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.

9. Cy is a trademark of GE Healthcare.

10. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.


References


Herodin F, Thullier P, Garin D, Drouet M. Nonhuman primates are relevant models for research in hematology, immunology and virology. Eur Cytokine Netw. 2005; 16(2):104-116. (Biology)


