

**PE/Dazzle™ 594 anti-human HLA-DR**

**Catalog # / Size:** 2138270 / 100 tests  
2138265 / 25 tests

**Clone:** L243

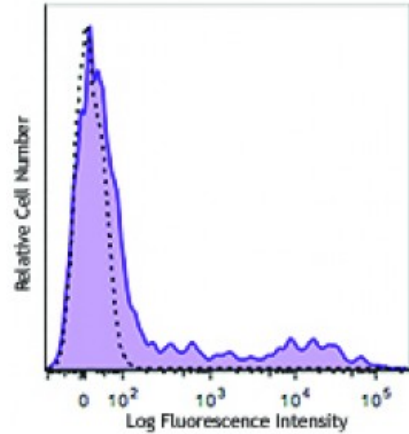
**Isotype:** Mouse IgG2a, κ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with HLA-DR (clone L243) PE/Dazzle™ 594 (filled histogram). Open histogram represents unstained cells.

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

**Application Notes:** The L243 monoclonal antibody reacts with the HLA-DR antigen, a member of MHC class II molecules. It does not cross react with HLA-DP and HLA-DQ. Clone L243 binds a conformational epitope on HLA-DRα which depends on the correct folding of the αβ heterodimer.<sup>19</sup>

Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>8</sup>, Western blotting<sup>8</sup>, *in vitro* blocking of mixed lymphocyte reactions<sup>9,10</sup>, depletion of MHC class II cells<sup>7</sup>, and immunohistochemical staining of acetone-fixed frozen sections<sup>4,5</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 307612). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 307648) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

- Application References:**
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  14. Goncalves RM, *et al.* 2010. *Infect. Immun.* 78:4763. [PubMed](#)
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  16. Kim WK, *et al.* 2006. *Am. J. Pathol.* 168:822. (FC)
  17. Stein R, *et al.* 2011. *Leuk. Lymphoma* 52:273.
  18. Galkowska H, *et al.* 1996. *Vet. Immunol. Immunopathol.* 53:329.
  19. Moro M, *et al.* 2005. *BMC Immunol.* 6:24.
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**Description:** HLA-DR is a heterodimeric cell surface glycoprotein comprised of a 36 kD  $\alpha$  (heavy) chain and a 27 kD  $\beta$  (light) chain. It is expressed on B cells, activated T cells, monocytes/macrophages, dendritic cells, and other non-professional APCs. In conjunction with the CD3/TCR complex and CD4 molecules, HLA-DR is critical for efficient peptide presentation to CD4<sup>+</sup> T cells.

- Antigen**
- References:**
1. Levacher M, *et al.* 1990. *Clin. Exp. Immunol.* 81:177.
  2. Terstappen L, *et al.* 1990. *J. Leukocyte Biol.* 48:138.
  3. Edwards JA, *et al.* 1986. *J. Immunol.* 137:490.
  4. van Es A, *e*