

**PE/Cy7 anti-human HLA-DR**

**Catalog # / Size:** 2138080 / 100 tests  
2138075 / 25 tests

**Clone:** L243

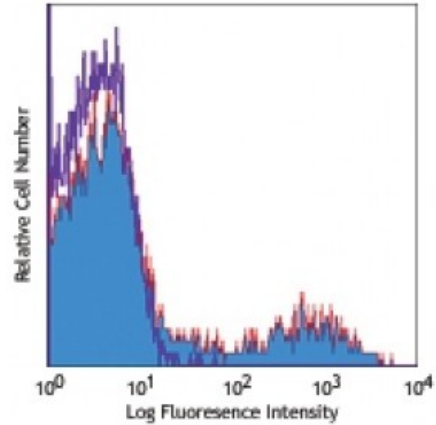
**Isotype:** Mouse IgG2a, κ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 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 stained with L243 PE/Cy7

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**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:**

1. Brodsky F. 1984. *Immunogenetics* 19:179.
2. Robbins P, et al. 1987. *Human Immunol.* 18:301.
3. Stites D, et al. 1986. *Clin. Immunol. Immunopathol.* 38:161.
4. Warnke R, et al. 1980. *J. Histochem. Cytochem.* 28:771. (IHC)
5. Engleman E, et al. 1981. *P. Natl. Acad. Sci. USA* 78:1791. (IHC)
6. Zipf T, et al. 1981. *Cancer Res.* 41:4786.
7. Goodier M, et al. 2000. *J. Immunol.* 165:139. (Depletion)
8. Esser M, et al. 2001. *J. Virol.* 75:6173. (IP, WB)
9. Kalka-Moll WM, et al. 2002. *J. Immunol.* 169:6149. (Block)
10. Wang RF, et al. 1999. *Science* 284:1351. (Block)
11. Zaba LC, et al. 2007. *J. Exp. Med.* 204:3183. [PubMed](#)
12. Fujita H, et al. 2009. *P. Natl. Acad. Sci. USA* 106:21795. [PubMed](#)

13. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
  14. Goncalves RM, *et al.* 2010. *Infect. Immun.* 78:4763. [PubMed](#)
  15. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
  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.
  20. Lauterbach N, *et al.* 2014. *Mol Immunol.* 59:19. [PubMed](#)
- 

**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*