

# Product Data Sheet

## Biotin anti-human HLA-DR

**Catalog # / Size:** 307614 / 100 µg

**Clone:** L243

**Isotype:** Mouse IgG2a, κ

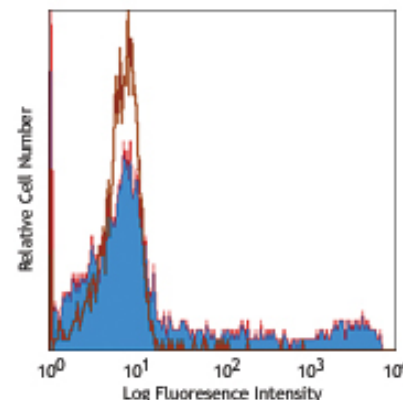
**Reactivity:** Human, **Cross-Reactivity:** African Green, Baboon, Chimpanzee, Common Marmoset, Cotton-topped Tamarin, Cynomolgus, Pigtailed Macaque, Rhesus, Squirrel Monkey, Dog (Canine)<sup>17, 18</sup>

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human peripheral blood lymphocytes stained with biotinylated L243, followed by Sav-PE

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.03 µg per million cells in 100 µl volume. 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. 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>7,9,10</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/µg).

- 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. Warneke 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. (Block)
  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.

**Description:** HLA-DR is a heterodimeric cell surface glycoprotein comprised of a 36 kD α (heavy) chain and a 27 kD β (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, et al. 1984. *Transplantation* 37:65.
  5. O'Doherty U, et al. 1994. *Immunology* 82:487.
  6. Thomas R, et al. 1994. *J. Immunol.* 153:4016.
  7. Grouard G, et al. 1996. *Nature* 384:364.

### Related Products:Product

### Clone

### Application



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Biotin Mouse IgG2a, κ Isotype Ctrl	MOPC-173	FC, ICFC
APC Streptavidin		FC, ICFC
APC/Cy7 Streptavidin		FC, ICFC
Cy5 Streptavidin		FC, ICFC
PE Streptavidin		FC, ICFC
PE/Cy5 Streptavidin		FC, ICFC
PE/Cy7 Streptavidin		FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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