

Product Data Sheet

Pacific Blue™ anti-human HLA-DR

Catalog # / Size: 307623 / 25 µg
 307624 / 100 µg
 307633 / 100 tests

Clone: L243

Isotype: Mouse IgG2a, κ

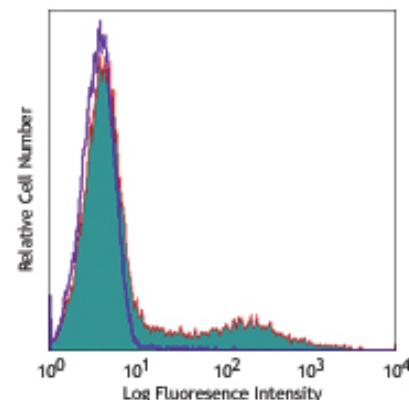
Reactivity: Human, **Cross-Reactivity:** African Green, Baboon, Chimpanzee, Common Marmoset, Cotton-topped Tamarin, Cynomolgus, Pigtailed Macaque, Rhesus, Squirrel Monkey, Dog (Canine)^{17, 18}

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

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

Concentration: test size: lot-specific; µg sizes: 0.5 mg/ml

Storage: The HLA-DR antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with L243 Pacific Blue™

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this HLA-DR antibody is quality control tested by immunofluorescent staining with flow cytometric analysis.

For test size, the suggested use of this reagent for immunofluorescent staining is 5 µl per 10⁶ cells in 100 µl volume.
For µg sizes, the suggested use of this reagent for immunofluorescent staining is ≤0.5 µg per 10⁶ cells in 100 µl volume.

It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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: immunoprecipitation⁸, Western blotting⁸, *in vitro* blocking of mixed lymphocyte reactions^{7,9,10}, and immunohistochemical staining of acetone-fixed frozen sections^{4,5}. 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. 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. (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.



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18. Galkowska H, *et al.* 1996. *Vet. Immunol. Immunopathol.* 53:329.
19. Mesman AW, *et al.* 2012. *PLoS One.* 7:e49573. PubMed.

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⁺ 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
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	Pacific Blue™ Mouse IgG2a, κ Isotype Ctrl	MOPC-173	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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