Product Data Sheet

PE/Dazzle™ 594 anti-human HLA-DR

Catalog # / Size: 2138265 / 25 tests

2138270 / 100 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

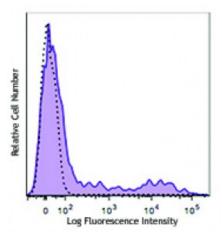
unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

0.2% (w/v) BSA (origin USA).

Concentration: 0.2



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-DR α which depends on the correct folding of the $\alpha\beta$ heterodimer. ¹⁹

Additional reported applications (for the relevant formats) include: immunoprecipitation⁸, Western blotting⁸, *in vitro* blocking of mixed lymphocyte reactions^{9,10}, depeletion of MHC class II cells⁷, and immunohistochemical staining of acetone-fixed frozen sections^{4,5}. The LEAF $^{\text{TM}}$ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 307612). For highly sensitive assays, we recommend Ultra-LEAF $^{\text{TM}}$ purified antibody (Cat. No. 307648) with a lower endotoxin limit than standard LEAF $^{\text{TM}}$ 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 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, e