

Alexa Fluor® 488 anti-human HLA-DR

Catalog # / Size: 2138280 / 100 µg
2138095 / 25 tests

2138100 / 100 tests

Clone: L243

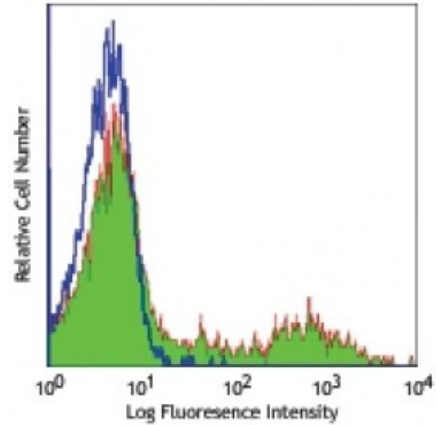
Isotype: Mouse IgG2a, κ

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions.

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

Concentration: microg sizes: 0.2 mg/ml
test sizes: lot-specific



Human peripheral blood lymphocytes stained with L243 Alexa Fluor® 488

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 using the microg size, the suggested use of this reagent is ≤1.0 microg per million cells in 100 microL volume. For flow cytometric staining using test sizes, 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.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 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.¹⁹

Additional reported applications (for the relevant formats) include: immunoprecipitation⁸, Western blotting⁸, *in vitro* blocking of mixed lymphocyte reactions^{9,10}, depletion of MHC class II cells⁷, 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/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](#)
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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*