

APC/Fire™ 750 anti-human HLA-DR

Catalog # / 2138290 / 100 tests
Size: 2138285 / 25 tests

Clone: L243

Isotype: Mouse IgG2a, κ

Immunogen: TK1 cells

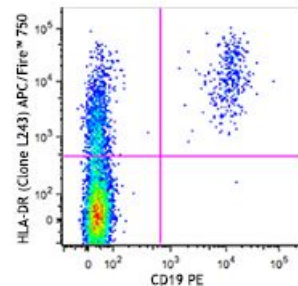
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with APC/Fire™

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

Workshop Number: 750 under optimal conditions.

Concentration: Lot-specific



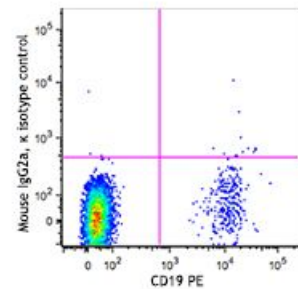
Human peripheral blood lymphocytes were stained with CD19 PE and HLA-DR (clone L243) APC/Fire™ 750 (top) or Mouse IgG2a, κ APC/Fire™ 750 isotype control (bottom).

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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.



Human peripheral blood lymphocytes were stained with anti-human CD3 FITC and anti-human CD279 (PD-1) PE/Fire™ 640 (clone EH12.2H7) (left), or mouse IgG1, κ PE/Fire™ 640 (right).

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}, depletion of MHC class II cells⁷, and immunohistochemical staining of acetone-fixed frozen sections^{4,5}. For sensitive functional assays, we recommend using the Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/ μ g, Azide-Free, 0.2 μ m filtered) (Cat. No. 307648, 307665 - 307669).

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, 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.