SONY

Product Data Sheet

FITC anti-human HLA-DR

Catalog # / Size: 2138160 / 100 µg
2138015 / 25 tests
2138020 / 100 tests

Clone: L243

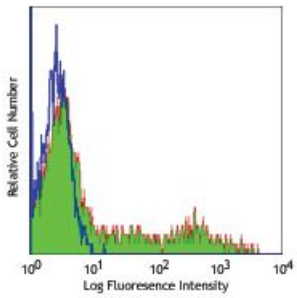
Isotype: Mouse IgG2a, κ

Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.

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

Concentration: Lot-specific



Human peripheral blood lymphocytes stained with L243 FITC

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 100 µl of whole blood. 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. 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: immunoprecipitation[8], Western blotting[8], *in vitro* blocking of mixed lymphocyte reactions[9,10], depeletion of MHC class II cells[7], 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).

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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, *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.

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