

# ProteinFind® Anti-HLA-DR Mouse Monoclonal Antibody

Please read the datasheet carefully prior to use.

**Cat. No.** HS908

**Version No.** Version 2.0

**Storage:** PBS (pH7.4), 150 mM NaCl, 0.05% ProClin 300, 50% Glycerol; at -20°C for two years, avoid repeated freeze-thawing.

## Description

HLA-DR is a heterodimer composed of 36 kDa  $\alpha$  chain and 27 kDa  $\beta$  chain, encoded by the MHC gene complex on the short arm of chromosome 6. The two chains can appear in many different allelic morphologies and are highly polymorphic. HLA-DR is structurally expressed in antigen-presenting cells, mainly in immune system cells<sup>[1]</sup>. HLA-DR was strongly expressed in monocytes, especially in CD14+ CD16+ subgroups<sup>[2]</sup>. It can also be expressed in macrophages, granulocytes, plasmoid dendritic cells, microglia and Langerhans' cells<sup>[1,3,4]</sup>. HLA-DR can also be expressed in the immature hematopoietic cells, such as BFU-E, but not in CFU-E or proerythroblast<sup>[5]</sup>. This product is the mouse anti-human HLA-DR monoclonal antibody, which is used for the specific detection of human HLA-DR by IF and FC.

**Species Reactivity:** Human

**Clone Number:** Trans-12G7

**Antibody Subtype:** Mouse IgG2b

## Immunogen

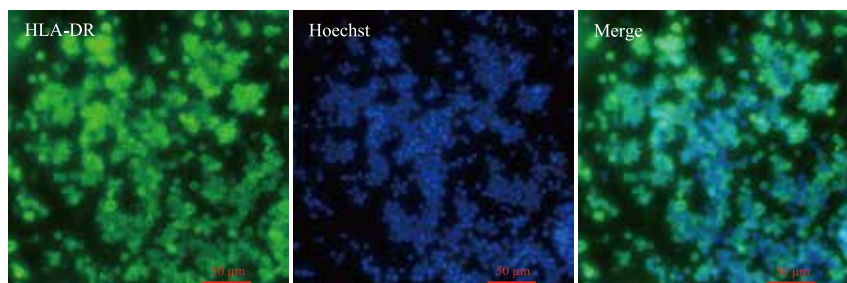
- Recombinant human HLA-DR protein
- Entrez Gene ID: 3122
- UniProt ID: P01903

## Applicable Experiments and Dilution

- IF: 1:100 dilution is recommended.
- FC: 1:400-1:1600 dilution is recommended.

**Positive Control Cell Line:** Raji cells

★ **Advanced Validation:** The antibody was validated by the relative expression of protein levels in different cell lines.

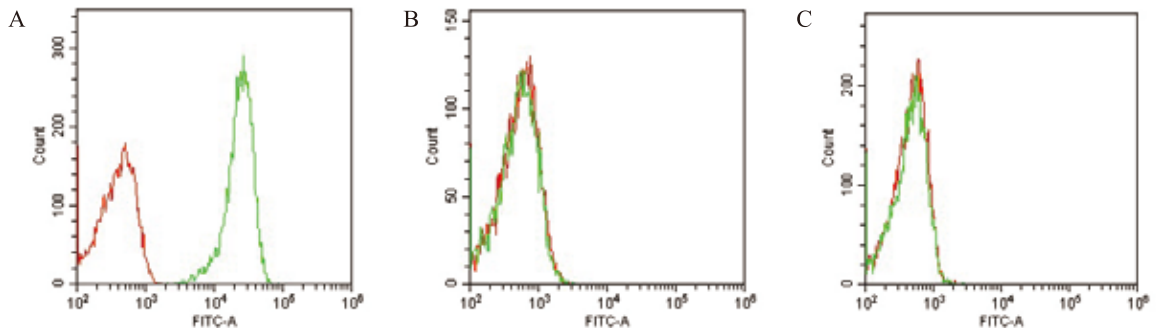


IF: ProteinFind® Anti-HLA-DR Mouse Monoclonal Antibody (green) was used to detect the localization of HLA-DR in Raji cells.

Hoechst is used to label the nucleus (blue).

Dilution ratio of primary antibody: 1:100





FC: *ProteinFind*<sup>®</sup> Anti-HLA-DR Mouse Monoclonal Antibody (green) for FC detection of Raji cells (positive cells) (figure A), MSC (negative cells) (figure B) and HeLa cells (negative cells) (figure C).

The negative control was Mouse IgG2b Isotype Control (red).

Dilution ratio of primary antibody: 1:800

## References

- [1] Ting JP, TROWSDALE J. Genetic control of MHC class II expression [J]. *Cell*. 2002, 109 Suppl: S21-33.
- [2] Passlick B, Flieger D, Ziegler-Heitbrock HW. Identification and characterization of a novel monocyte subpopulation in human peripheral blood [J]. *Blood*. 1989, 74(7): 2527-34.
- [3] Mattiace LA, Davies P, Dickson DW. Detection of HLA-DR on microglia in the human brain is a function of both clinical and technical factors [J]. *Am J Pathol*. 1990, 136(5): 1101-14.
- [4] Angel CE, George E, Ostrovsky LL, et al. Comprehensive analysis of MHC-II expression in healthy human skin [J]. *Immunol Cell Biol*. 2007, 85(5): 363-9.
- [5] Nakahata T, Okumura N. Cell surface antigen expression in human erythroid progenitors: erythroid and megakaryocytic markers [J]. *Leuk Lymphoma*. 1994, 13(5-6): 401-9.

**For research use only, not for clinical diagnosis.**

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