

PE/Fire™ 700 anti-human HLA-DR, DP, DQ Antibody

Catalog# / Size	361729 / 25 tests
Clone	Tü39
Regulatory Status	RUO
Other Names	MHC class II, Major Histocompatibility complex II, human leukocyte antigen, HLA
Isotype	Mouse IgG2a, κ
Description	HLA-DR, HLA-DP, and HLA-DQ are heterodimeric cell surface glycoproteins comprised of an α (heavy) chain and a β (light) chain. They are 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. Variations in the HLA gene expression are crucial to graft survival.

Product Details

Verified Reactivity	Human
Reported Reactivity	Baboon, Cynomolgus, Cat, Dog, Cow
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human PBL
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 700 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
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. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Fire™ 700 has a maximum excitation of 565 nm and a maximum emission of 695 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Tü39 has been reported to react with a shared epitope of HLA-DR, HLA-DP, and HLA-DQ. Additional reported applications (of relevant formats) include immunoprecipitation ⁶ , <i>in vitro</i> blocking of MLR ⁵ , and suppressor cell generation ⁴ . The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (contact our custom solutions team).

Application References

(PubMed link indicates
BioLegend citation)

1. Pawelec G, *et al.* 1985. *Hum. Immunol.* 12:165.
2. Shaw S, *et al.* 1985. *Hum. Immunol.* 12:191.
3. Ziegler A, *et al.* 1986. *Immunobiology* 171:77.
4. Pawelec G, *et al.* 1986. *Hum. Immunol.* 17:343. (Block)
5. Dai Z, *et al.* 2009. *J. Exp. Med.* 206:793. (Block)
6. Pawelec G, *et al.* 1988. *J. Exp. Med.* 167:243. (IP)

Antigen Details

Structure	Ig superfamily, MHC class II, heterodimeric transmembrane protein
Distribution	B cells, activated T cells, monocytes/macrophages, dendritic cells, other APCs
Function	Antigen presentation
Ligand/Receptor	CD3/TCR, CD4
Cell Type	Antigen-presenting cells, B cells, Dendritic cells, Macrophages, Monocytes, T cells
Biology Area	Immunology, Innate Immunity
Molecular Family	MHC Antigens
Antigen References	<ol style="list-style-type: none">1. Thorsby E. 1974. <i>Transplant. Rev.</i> 18:51.2. Qvigstad E, <i>et al.</i> 1984. <i>Hum. Immunol.</i> 11:207.3. Serenius B, <i>et al.</i> 1984. <i>EMBO J.</i> 3:3209.4. Ottenhoff TH, <i>et al.</i> 1985. <i>Hum. Immunol.</i> 13:105.5. Strassmann G, <i>et al.</i> 1985. <i>Hum. Immunol.</i> 13:125.6. Trowsdale J, <i>et al.</i> 1985. <i>Immunol Rev.</i> 85:5.

Gene ID	3122
	3123
	3113
	3115
	3117
	3119

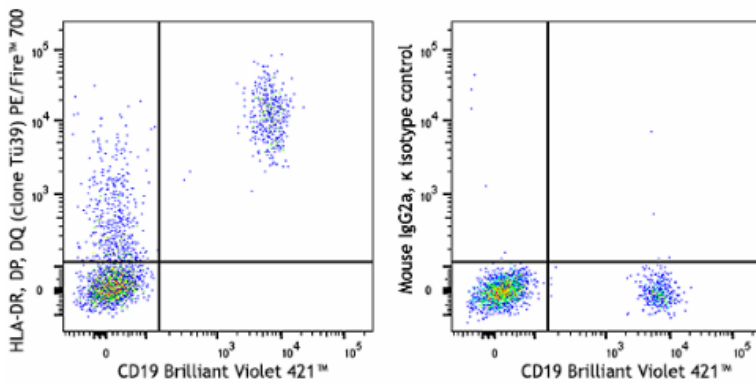
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human HLA-DR, DP, DQ, FITC anti-human HLA-DR, DP, DQ, Alexa Fluor® 647 anti-human HLA-DR, DP, DQ, PE/Cyanine7 anti-human HLA-DR, DP, DQ, APC anti-human HLA-DR, DP, DQ, PerCP/Cyanine5.5 anti-human HLA-DR, DP, DQ, PE anti-human HLA-DR, DP, DQ, APC/Fire™ 750 anti-human HLA-DR, DP, DQ, TotalSeq™-A1018 anti-human HLA-DR, DP, DQ, TotalSeq™-D1018 anti-human HLA-DR, DP, DQ, TotalSeq™-B1018 anti-human HLA-DR, DP, DQ, Spark Blue™ 574 anti-human HLA-DR, DP, DQ, TotalSeq™-C1018 anti-human HLA-DR, DP, DQ, Spark Red™ 718 anti-human HLA-DR/HLA-DP/HLA-DQ (Flexi-Fluor™), Spark Blue™ 550 anti-human HLA-DR/HLA-DP/HLA-DQ (Flexi-Fluor™), Spark PLUS UV395™ anti-human HLA-DR, DP, DQ, PE/Fire™ 700 anti-human HLA-DR, DP, DQ Antibody

Product Data



Human peripheral blood lymphocytes were stained with anti-human CD19 (clone HIB19) Brilliant Violet 421™ and anti-human HLA-DR, DP, DQ (clone Tü39) PE/Fire™ 700 (left) or mouse IgG2a, κ PE/Fire™ 700 isotype control (right).

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