

KIRAVIA Blue 520™ anti-human HLA-DR Antibody

Catalog# / Size	307679 / 25 tests 307680 / 100 tests
Clone	L243
Regulatory Status	RUO
Other Names	Major Histocompatibility Class II, MHC class II
Isotype	Mouse IgG2a, κ
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.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green, Baboon, Chimpanzee, Dog, Common Marmoset, Squirrel Monkey, Cotton-topped Tamarin
Antibody Type	Monoclonal
Host Species	Mouse
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 KIRAVIA Blue 520™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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	<p>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.</p> <p>* KIRAVIA Blue 520™ has an excitation maximum of 495 nm, and a maximum emission of 520 nm.</p> <p>KIRAVIA Blue™ 520 is a trademark of Sony. This product is subject to proprietary rights of Sony and is made and sold under license from Sony Corporation. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p> <p>Sony and the Sony logo are registered trademarks of Sony Corporation.</p>
Excitation Laser	Blue Laser (488 nm)
Application Notes	<p>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-DRA which depends on the correct folding of the $\alpha\beta$ heterodimer.¹⁹</p> <p>Additional reported applications (for the relevant formats) include: immunoprecipitation⁸, Western blotting⁸, <i>in vitro</i> blocking of mixed lymphocyte reactions^{9,10}, depletion of MHC class II cells⁷, immunohistochemical staining of acetone-fixed frozen sections^{4,5}, and spatial biology (IBEX)^{21,22}. For sensitive functional assays, we recommend using the Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) (Cat. No. 307648, 307665 - 307669).</p>

Application References

(PubMed link indicates
BioLegend citation)

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13. Charles N, et al. 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
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RRID

AB_2892372 (BioLegend Cat. No. 307679)
AB_2892372 (BioLegend Cat. No. 307680)

Antigen Details

Structure	Ig superfamily, MHC class II, heterodimeric transmembrane protein, 36 kD heavy and 27 kD light chain
Distribution	B cells, activated T cells, monocytes/macrophages, dendritic cells, other APCs
Function	Peptide presentation
Ligand/Receptor	CD3/TCR, CD4
Cell Type	Antigen-presenting cells, B cells, Dendritic cells, Macrophages, Monocytes, T cells, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	MHC Antigens
Antigen References	<ol style="list-style-type: none">1. Levacher M, et al. 1990. <i>Clin. Exp. Immunol.</i> 81:177.2. Terstappen L, et al. 1990. <i>J. Leukocyte Biol.</i> 48:138.3. Edwards JA, et al. 1986. <i>J. Immunol.</i> 137:490.4. van Es A, et al. 1984. <i>Transplantation</i> 37:65.5. O'Doherty U, et al. 1994. <i>Immunology</i> 82:487.6. Thomas R, et al. 1994. <i>J. Immunol.</i> 153:4016.7. Grouard G, et al. 1996. <i>Nature</i> 384:364.
Gene ID	3122 3123

Related Protocols

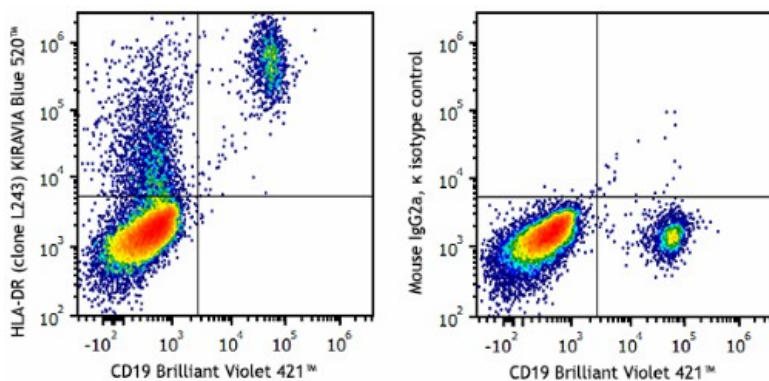
[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human HLA-DR, FITC anti-human HLA-DR, PE anti-human HLA-DR, PE/Cyanine5 anti-human HLA-DR, Purified anti-human HLA-DR, Biotin anti-human HLA-DR, PE/Cyanine7 anti-human HLA-DR, APC/Cyanine7 anti-human HLA-DR, Alexa Fluor® 488 anti-human HLA-DR, Alexa Fluor® 647 anti-human HLA-DR, Pacific Blue™ anti-human HLA-DR, Alexa Fluor® 700 anti-human HLA-DR, PerCP anti-human HLA-DR, PerCP/Cyanine5.5 anti-human HLA-DR, Brilliant Violet 605™ anti-human HLA-DR, Brilliant Violet 421™ anti-human HLA-DR, Brilliant Violet 570™ anti-human HLA-DR, Brilliant Violet 711™ anti-human HLA-DR, Brilliant Violet 785™ anti-human HLA-DR, Brilliant Violet 510™ anti-human HLA-DR, Ultra-LEAF™ Purified anti-human HLA-DR, Brilliant Violet 650™ anti-human HLA-DR, Purified anti-human HLA-DR (Maxpar® Ready), PE/Dazzle™ 594 anti-human HLA-DR, APC/Fire™ 750

anti-human HLA-DR, TotalSeq™-A0159 anti-human HLA-DR, TotalSeq™-B0159 anti-human HLA-DR, TotalSeq™-C0159 anti-human HLA-DR, Brilliant Violet 750™ anti-human HLA-DR, APC/Fire™ 810 anti-human HLA-DR, PE/Fire™ 640 anti-human HLA-DR, Spark Violet™ 538 anti-human HLA-DR Antibody, KIRAVIA Blue 520™ anti-human HLA-DR, TotalSeq™-D0159 anti-human HLA-DR, PE/Fire™ 810 anti-human HLA-DR, GMP PE/Dazzle™ 594 anti-human HLA-DR, Spark Violet™ 423 anti-human HLA-DR, GMP FITC anti-human HLA-DR, GMP APC anti-human HLA-DR, GMP PE/Cyanine7 anti-human HLA-DR, GMP Pacific Blue™ anti-human HLA-DR, GMP APC/Fire™ 750 anti-human HLA-DR

Product Data



Human peripheral blood lymphocytes were stained with anti-human CD19 Brilliant Violet 421™ and anti-human HLA-DR (clone L243) KIRAVIA Blue 520™ (left), or mouse IgG2a, κ KIRAVIA Blue 520™ isotype control (right).

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587