

## Pacific Blue™ anti-human HLA-DR Antibody

<b>Catalog# / Size</b>	307623 / 25 µg 307624 / 100 µg 307633 / 100 tests
<b>Clone</b>	L243
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Major Histocompatibility Class II, MHC class II
<b>Isotype</b>	Mouse IgG2a, κ
<b>Description</b>	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 <sup>+</sup> T cells.

### Product Details

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Baboon, Chimpanzee, Dog, Common Marmoset, Squirrel Monkey, Cotton-topped Tamarin
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA). µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions.
<b>Concentration</b>	test size: lot-specific; µg sizes: 0.5 mg/ml
<b>Storage &amp; Handling</b>	The HLA-DR antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . <b>For test size</b> , the suggested use of this reagent for immunofluorescent staining is 5 µl per 10 <sup>6</sup> cells in 100 µl volume. <b>For µg sizes</b> , the suggested use of this reagent for immunofluorescent staining is ≤0.5 µg per 10 <sup>6</sup> cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.  * Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.  Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.  <a href="#">View full statement regarding label licenses</a>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	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 αβ heterodimer. <sup>19</sup>  Additional reported applications (for the relevant formats) include: immunoprecipitation <sup>8</sup> , Western blotting <sup>8</sup> , <i>in vitro</i> blocking of mixed lymphocyte reactions <sup>9,10</sup> , depletion of MHC class II

cells<sup>7</sup>, immunohistochemical staining of acetone-fixed frozen sections<sup>4,5</sup>, and spatial biology (IBEX)<sup>21,22</sup>. 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).

## Application References

(PubMed link indicates BioLegend citation)

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## Product Citations

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2. Kong XF, et al. 2018. *Nat Immunol.* 19:973. [PubMed](#)
3. Antonova LV, et al. 2019. *Polymers (Basel).* 11:1. [PubMed](#)
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## RRID

AB\_493664 (BioLegend Cat. No. 307623)  
AB\_493665 (BioLegend Cat. No. 307624)  
AB\_1595444 (BioLegend Cat. No. 307633)

## Antigen Details

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<b>Structure</b>	Ig superfamily, MHC class II, heterodimeric transmembrane protein, 36 kD heavy and 27 kD light chain
<b>Distribution</b>	B cells, activated T cells, monocytes/macrophages, dendritic cells, other APCs
<b>Function</b>	Peptide presentation
<b>Ligand/Receptor</b>	CD3/TCR, CD4
<b>Cell Type</b>	Antigen-presenting cells, B cells, Dendritic cells, Macrophages, Monocytes, T cells, Tregs
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	MHC Antigens
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Levacher M, et al. 1990. <i>Clin. Exp. Immunol.</i> 81:177.</li><li>2. Terstappen L, et al. 1990. <i>J. Leukocyte Biol.</i> 48:138.</li><li>3. Edwards JA, et al. 1986. <i>J. Immunol.</i> 137:490.</li><li>4. van Es A, et al. 1984. <i>Transplantation</i> 37:65.</li><li>5. O'Doherty U, et al. 1994. <i>Immunology</i> 82:487.</li><li>6. Thomas R, et al. 1994. <i>J. Immunol.</i> 153:4016.</li><li>7. Grouard G, et al. 1996. <i>Nature</i> 384:364.</li></ol>

## Gene ID

[3122](#)

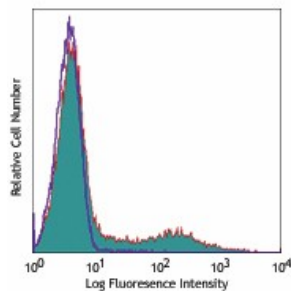
## Related Protocols

[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 stained with L243 Pacific Blue™

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