

## Brilliant Violet 510™ anti-mouse I-A/I-E Antibody

<b>Catalog# / Size</b>	107635 / 125 µL 107636 / 50 µg
<b>Clone</b>	M5/114.15.2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	MHC class II
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	These class II molecules are expressed on antigen presenting cells (including B cells) and a subset of T cells from H-2 <sup>b,d,q,r</sup> bearing mice and are involved in antigen presentation to T cells expressing CD3/TCR and CD4 proteins.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Activated C57BL/6 mouse spleen cells
<b>Formulation</b>	µg & µl: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	µg & µl: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.
<b>Concentration</b>	µg size: 0.2 mg/mL µL size: lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	µg & µl: The 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>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. For flow cytometric staining using µg size, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µl volume. For flow cytometric staining using µl size, the suggested use of this reagent is 5 µl per million cells 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>Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	The M5/114.15.2 antibody reacts with a polymorphic determinant shared by the I-A <sup>b</sup> , I-A <sup>d</sup> , I-A <sup>q</sup> , I-E <sup>d</sup> , and I-E <sup>k</sup> MHC class II alloantigens from mice carrying H-2 <sup>p,r,q,b,d,u</sup> haplotypes. Clone M5/114.15.2 however does not react with I-A <sup>f</sup> , I-A <sup>k</sup> , or I-A <sup>s</sup> MHC class II alloantigens. <sup>1</sup>

Additional reported applications (for the relevant formats) include: immunoprecipitation<sup>1</sup>, immunohistochemistry of frozen sections<sup>2,3,6</sup>, *in vitro* and *in vivo* blocking of antigen presentation or ligand binding<sup>4-7</sup>, and spatial biology (IBEX)<sup>17,18</sup>. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. Nos. 107655 & 107656).

## Application References

(PubMed link indicates  
BioLegend citation)

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**RRID** AB\_2561397 (BioLegend Cat. No. 107635)  
 AB\_2734168 (BioLegend Cat. No. 107636)

## Antigen Details

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<b>Structure</b>	MHC class II
<b>Distribution</b>	B cell and activated T cells, APCs of the H-2 <sup>b,d,q,r</sup> bearing mice
<b>Function</b>	Antigen presentation
<b>Ligand/Receptor</b>	CD3/TCR, CD4
<b>Cell Type</b>	Antigen-presenting cells, B cells, Dendritic cells, T cells, Tregs
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	MHC Antigens
<b>Antigen References</b>	1. Watts C. 1997. <i>Ann. Rev. Immunol.</i> 15:821. 2. Pamer E, <i>et al.</i> 1998. <i>Ann. Rev. Immunol.</i> 16:323.
<b>Gene ID</b>	<a href="#">14961</a> <a href="#">14969</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

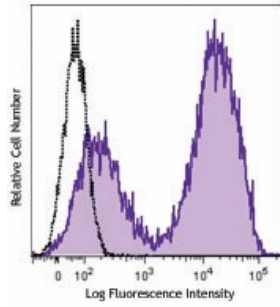
## Other Formats

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Biotin anti-mouse I-A/I-E, FITC anti-mouse I-A/I-E, PE anti-mouse I-A/I-E, Purified anti-mouse I-A/I-E, PE/Cyanine5 anti-mouse I-A/I-E, APC anti-mouse I-A/I-E, Alexa Fluor® 488 anti-mouse I-A/I-E, Alexa Fluor® 647 anti-mouse I-A/I-E, Pacific Blue™ anti-mouse I-A/I-E, Alexa Fluor® 700 anti-mouse I-A/I-E, PerCP/Cyanine5.5 anti-mouse I-A/I-E, PerCP anti-mouse I-A/I-E, APC/Cyanine7 anti-mouse I-A/I-E, PE/Cyanine7 anti-mouse I-A/I-E, Brilliant Violet 421™ anti-mouse I-A/I-E, Brilliant Violet 510™ anti-mouse I-A/I-E, Purified anti-mouse I-A/I-E (Maxpar® Ready), Brilliant Violet 605™ anti-mouse I-A/I-E, Brilliant Violet 650™ anti-mouse I-A/I-E, Brilliant Violet 711™ anti-mouse I-A/I-E, Brilliant Violet 785™ anti-mouse I-A/I-E, PE/Dazzle™ 594 anti-mouse I-A/I-E, Alexa Fluor® 594 anti-mouse I-A/I-E, APC/Fire™ 750 anti-mouse I-A/I-E, TotalSeq™-A0117 anti-mouse I-A/I-E, Ultra-LEAF™ Purified anti-mouse I-A/I-E, TotalSeq™-B0117 anti-mouse I-A/I-E, TotalSeq™-C0117 anti-mouse I-A/I-E, Spark Blue™ 550 anti-mouse I-A/I-E, PE/Fire™ 640 anti-mouse I-A/I-E, Spark YG™ 581 anti-mouse I-A/I-E, PE/Fire™ 810 anti-mouse I-A/I-E, Spark UV™ 387 anti-mouse I-A/I-E

## Product Data

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C57BL/6 mouse splenocytes were stained with mouse I-A/I-E (clone M5/114.15.2) Brilliant Violet 510™ (filled histogram) or rat IgG2b,  $\kappa$  Brilliant Violet 510™ isotype control (open histogram).

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