

## Spark YG™ 581 anti-mouse I-A/I-E Antibody

<b>Catalog# / Size</b>	107665 / 25 µg 107666 / 100 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

<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>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Spark YG™ 581 under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	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>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 0.125 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.  * Spark YG™ 581 has a maximum excitation of 562 nm and a maximum emission of 581 nm.
<b>Excitation Laser</b>	Green Laser (532 nm)/Yellow-Green Laser (561 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> , <i>in vitro</i> and <i>in vivo</i> 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).
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Bhattacharya A, <i>et al.</i> 1981. <i>J. Immunol.</i> 127:2488. (IP)</li> <li>2. Viville S, <i>et al.</i> 1993. <i>Cell</i> 72:635. (IHC)</li> <li>3. Nelson AJ, <i>et al.</i> 1993. <i>J. Immunol.</i> 151:2453. (IHC)</li> <li>4. Shi Y, <i>et al.</i> 1998. <i>J. Exp. Med.</i> 187:367. (Block)</li> <li>5. Yamashita I, <i>et al.</i> 1993. <i>Int. Immunol.</i> 5:1139.</li> <li>6. Guo M, <i>et al.</i> 1995. <i>Zygote</i> 3:65. (IHC)</li> <li>7. Kim A, <i>et al.</i> 2004. <i>Exp. Mol. Med.</i> 36:428. (Block)</li> <li>8. Luckashenak NA, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:5177.</li> <li>9. Venanzi ES, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:5693.</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

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12. De Pascalis R, *et al.* 2008. *Infect. Immun.* 76:4311. [PubMed](#)
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15. Draber P, *et al.* 2011. *Mol Cell Biol.* 22:4550. [PubMed](#)
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**RRID** AB\_2894414 (BioLegend Cat. No. 107665)  
 AB\_2894414 (BioLegend Cat. No. 107666)

## 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](#)

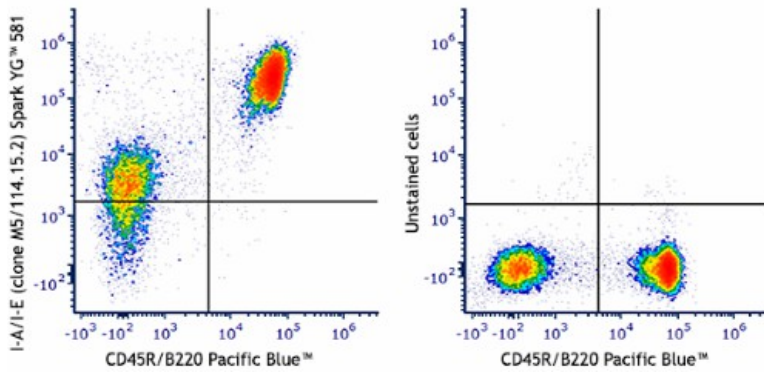
## Other Formats

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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 anti-mouse CD45R/B220 Pacific Blue™ and anti-mouse I-A/I-E (clone M5/114.15.2) Spark YG™ 581 or anti-mouse CD45R/B220 Pacific Blue™ only (right).

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