

Biotin anti-mouse I-A/I-E Antibody

Catalog# / Size	107603 / 50 µg 107604 / 500 µg
Clone	M5/114.15.2
Regulatory Status	RUO
Other Names	MHC class II
Isotype	Rat IgG2b, κ
Description	These class II molecules are expressed on antigen presenting cells (including B cells) and a subset of T cells from H-2 ^{b,d,q,r} bearing mice and are involved in antigen presentation to T cells expressing CD3/TCR and CD4 proteins.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Activated C57BL/6 mouse spleen cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. 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 ≤ 0.25 µg per 10 ⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	<p>The M5/114.15.2 antibody reacts with a polymorphic determinant shared by the I-A^b, I-A^d, I-A^q, I-E^d, and I-E^k MHC class II alloantigens from mice carrying H-2^{p,r,q,b,d,u} haplotypes. Clone M5/114.15.2 however does not react with I-A^f, I-A^k, or I-A^s MHC class II alloantigens.¹</p> <p>Additional reported applications (for the relevant formats) include: immunoprecipitation¹, immunohistochemistry of frozen sections^{2,3,6}, <i>in vitro</i> and <i>in vivo</i> blocking of antigen presentation or ligand binding⁴⁻⁷, and spatial biology (IBEX)^{17,18}. 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).</p>
Application References	<ol style="list-style-type: none"> Bhattacharya A, <i>et al.</i> 1981. <i>J. Immunol.</i> 127:2488. (IP) Viville S, <i>et al.</i> 1993. <i>Cell</i> 72:635. (IHC) Nelson AJ, <i>et al.</i> 1993. <i>J. Immunol.</i> 151:2453. (IHC) Shi Y, <i>et al.</i> 1998. <i>J. Exp. Med.</i> 187:367. (Block) Yamashita I, <i>et al.</i> 1993. <i>Int. Immunol.</i> 5:1139. Guo M, <i>et al.</i> 1995. <i>Zygote</i> 3:65. (IHC) Kim A, <i>et al.</i> 2004. <i>Exp. Mol. Med.</i> 36:428. (Block) Luckashenak NA, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:5177. Venanzi ES, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:5693. Christensen SR, <i>et al.</i> 2006. <i>Immunity</i> 25:417. PubMed Matte-Martone C, <i>et al.</i> 2008. <i>Blood</i> 111:3884. PubMed De Pascalis R, <i>et al.</i> 2008. <i>Infect. Immun.</i> 76:4311. PubMed Kuns RD, <i>et al.</i> 2009. <i>Blood</i> 113:5999. PubMed Sabatino JJ, <i>et al.</i> 2011. <i>J. Exp. Med.</i> 208:81. PubMed
(PubMed link indicates BioLegend citation)	

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Product Citations

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RRID

AB_313318 (BioLegend Cat. No. 107603)
 AB_313319 (BioLegend Cat. No. 107604)

Antigen Details

Structure	MHC class II
Distribution	B cell and activated T cells, APCs of the H-2 ^{b,d,q,r} bearing mice
Function	Antigen presentation
Ligand/Receptor	CD3/TCR, CD4
Cell Type	Antigen-presenting cells, B cells, Dendritic cells, T cells, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	MHC Antigens
Antigen References	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.
Gene ID	14961 14969

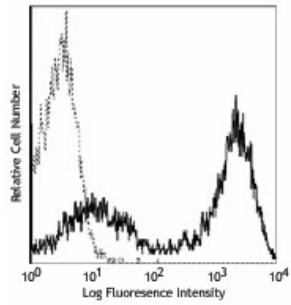
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



C57BL/6 mouse splenocytes were stained with anti-mouse I-A/I-E (clone M5/114.15.2) (solid line) or biotinylated rat IgG2b, κ isotype control (dashed line) followed by Sav-PE.

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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