

Spark PLUS B574™ anti-mouse I-A/I-E Antibody

Catalog# / Size	107687 / 25 µg 107688 / 100 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 Spark PLUS B574™ under optimal conditions.
Concentration	0.2 mg/mL
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	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 ≤ 0.5 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Spark PLUS B574™ has a maximum excitation of 506 nm and a maximum emission of 574 nm.
Excitation Laser	Blue Laser (488 nm)
Application Notes	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 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).

Application References

(PubMed link indicates
BioLegend citation)

1. Bhattacharya A, *et al.* 1981. *J. Immunol.* 127:2488. (IP)
2. Viville S, *et al.* 1993. *Cell* 72:635. (IHC)
3. Nelson AJ, *et al.* 1993. *J. Immunol.* 151:2453. (IHC)
4. Shi Y, *et al.* 1998. *J. Exp. Med.* 187:367. (Block)
5. Yamashita I, *et al.* 1993. *Int. Immunol.* 5:1139.
6. Guo M, *et al.* 1995. *Zygote* 3:65. (IHC)
7. Kim A, *et al.* 2004. *Exp. Mol. Med.* 36:428. (Block)
8. Luckashenak NA, *et al.* 2006. *J. Immunol.* 177:5177.
9. Venanzi ES, *et al.* 2007. *J. Immunol.* 179:5693.
10. Christensen SR, *et al.* 2006. *Immunity* 25:417. [PubMed](#)
11. Matte-Martone C, *et al.* 2008. *Blood* 111:3884. [PubMed](#)
12. De Pascalis R, *et al.* 2008. *Infect. Immun.* 76:4311. [PubMed](#)

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RRID

AB_3717246 (BioLegend Cat. No. 107687)
AB_3717246 (BioLegend Cat. No. 107688)

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

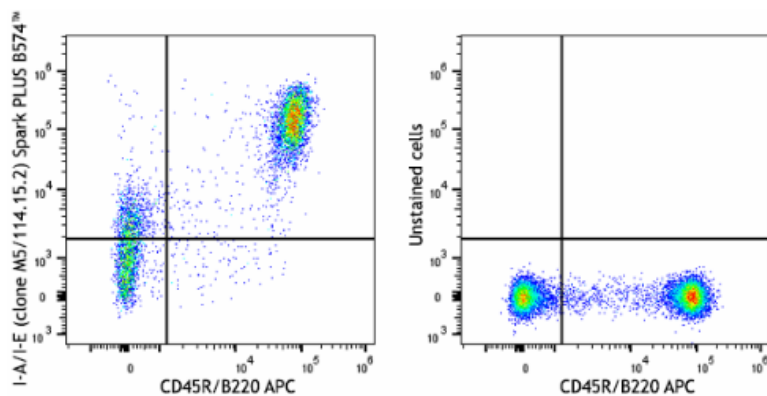
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

PE/Fire™ 810 anti-mouse I-A/I-E, PerCP/Fire™ 806 anti-mouse I-A/I-E, APC/Fire™ 810 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 711™ anti-mouse I-A/I-E, PE/Dazzle™ 594 anti-mouse I-A/I-E, Spark UV™ 387 anti-mouse I-A/I-E, APC/Fire™ 750 anti-mouse I-A/I-E, Spark Violet™ 538 anti-mouse I-A/I-E, APC/Cyanine7 anti-mouse I-A/I-E, Spark YG™ 581 anti-mouse I-A/I-E, Brilliant Violet 421™ anti-mouse I-A/I-E, Brilliant Violet 510™ anti-mouse I-A/I-E, Spark Red™ 718 anti-mouse I-A/I-E, PE/Cyanine5 anti-mouse I-A/I-E, Ultra-LEAF™ Purified anti-mouse I-A/I-E, TotalSeq™-B0117 anti-mouse I-A/I-E, Spark PLUS UV395™ anti-mouse I-A/I-E, Spark NIR™ 685 anti-mouse I-A/I-E (Flexi-Fluor™) Antibody, Brilliant Violet 750™ anti-mouse I-A/I-E, StarBright UltraViolet 795 anti-mouse I-A/I-E, Biotin anti-mouse I-A/I-E, PE anti-mouse I-A/I-E, PE/Fire™ 744 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, Purified anti-mouse I-A/I-E, PerCP/Cyanine5.5 anti-mouse I-A/I-E, PerCP anti-mouse I-A/I-E, PE/Cyanine7 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, APC anti-mouse I-A/I-E, Spark PLUS B574™ anti-mouse I-A/I-E Antibody, Alexa Fluor® 700 anti-mouse I-A/I-E, Brilliant Violet 650™ anti-mouse I-A/I-E, Brilliant Violet 785™ anti-mouse I-A/I-E, Alexa Fluor® 594 anti-mouse I-A/I-E, TotalSeq™-A0117 anti-mouse I-A/I-E, Spark YG™ 593 anti-mouse I-A/I-E (Flexi-Fluor™) Antibody, FITC anti-mouse I-A/I-E

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse/human CD45R/B220 (clone RA3-6B2) APC and anti-mouse I-A/I-E (clone M5/114.15.2) Spark PLUS B574™ (left) or stained with anti-mouse/human CD45R/B220 (clone RA3-6B2) APC only (right).

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