APC/Cyanine7 anti-mouse I-A/I-E Antibody

Catalog# / Size	107627 / 25 µg 107628 / 100 µg
Clone	M5/114.15.2
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

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 APC/Cyanine7 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 = 0.25 µg per 10^6 cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Red Laser (633 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 wtih I-A^f, I-A^k, or I-A^s MHC class II alloantigens.[1] Additional reported applications (for the relevant formats) include: immunoprecipitation[1], immunohistochemistry of frozen sections[2,3,6], and *in vitro* and *in vivo* blocking of antigen presentation or ligand binding[4-7]. 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).
Additional Product Notes	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact Technical Service if you have any questions.

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

Product Citations

1. Henningsson L, et al. 2010. Infect Immun. 78:3785. PubMed
2. Céspedes P, et al. 2014. Proc Natl Acad Sci U S A. 111:3214. PubMed

3. Schwartz C, et al. 2014. Proc Natl Acad Sci U S A. 111:5169. PubMed
4. Terrazas M 2014. Int J Parasit. 44 613 . PubMed
5. Castillo V, et al. 2015. PLoS One. 10: 0136620. PubMed
6. Engel O, et al. 2015. Stroke. 46: 3232 - 3240. PubMed
7. Lim S, et al. 2016. PLoS One. 11: 0155689. PubMed
8. Ghazal R, et al. 2016. Neoplasia. 18: 294-306. PubMed
9. Hilpert C, et al. 2016. J Immunol. 197: 2780 - 2786. PubMed
10. Zysset D, et al. 2016. Nat Commun. 7:13151. PubMed
11. Chandra J, et al. 2016. Immunol Cell Biol. 10.1038/icb.2016.83. PubMed
12. An J,et al. 2017. Sci Rep.. 10.1038/s41598-017-13629-0. PubMed

RRID AB_1659252 (BioLegend Cat. No. 107627)
AB_2069377 (BioLegend Cat. No. 107628)

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. Ann. Rev. Immunol. 15:821.
2. Pamer E, et al. 1998. Ann. Rev. Immunol. 16:323.

Gene ID 14961

14969

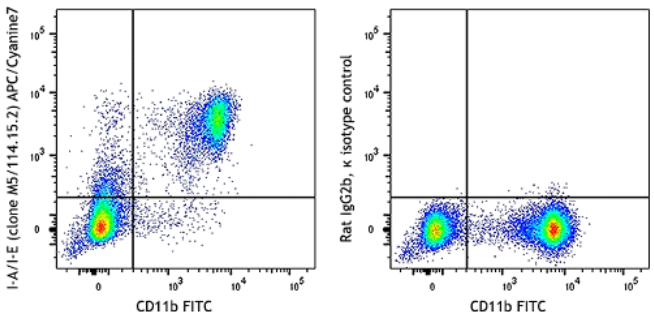
Related Protocols

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, 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

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse CD11b FITC and I-A/I-E (clone M5/114.15.2) APC/Cyanine7 (left) or Rat IgG2b, ? APC/Cyanine7 isotype control (right).

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