SONY

Product Data Sheet

Alexa Fluor® 647 anti-mouse I-A/I-E

Catalog # / Size: 1138090 / 100 µg
1138085 / 25 µg

Clone: M5/114.15.2

Isotype: Rat IgG2b, κ

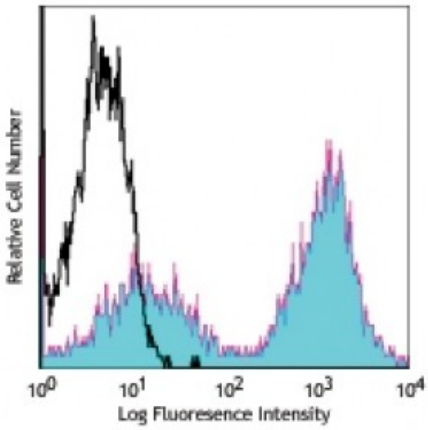
Immunogen: Activated C57BL/6 mouse spleen cells

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5



C57BL/6 mouse splenocytes were stained with anti-mouse I-A/I-E (clone M5/114.15.2) Alexa Fluor® 647 (filled histogram) or rat IgG2b, κ Alexa Fluor® 647 isotype control (open histogram).

Applications:

Applications: Immunofluorescence

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 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

Application Notes: The M5/114.15.2 antibody reacts with a polymorphic determinant shared by the I-Ab, I-Ad, I-A^q, I-Ed, and I-Eκ 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-Aκ, 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], and *in vitro* and *in vivo* blocking of antigen presentation or ligand binding[4-7]. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 107610).

Application References:

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

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11. Matte-Martone C, *et al.* 2008. *Blood* 111:3884. PubMed
12. De Pascalis R, *et al.* 2008. *Infect. Immun.* 76:4311. PubMed
13. Kuns RD, *et al.* 2009. *Blood* 113:5999. PubMed
14. Sabatino JJ, *et al.* 2011. *J. Exp. Med.* 208:81. PubMed
15. Draber P, *et al.* 2011. *Mol Cell Biol.* 22:4550. PubMed
16. Fu H, *et al.* 2014. *Nat Commun.* 5:3436. PubMed

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.

Antigen References:

1. Watts C. 1997. *Ann. Rev. Immunol.* 15:821.
2. Pamer E, *et al.* 1998. *Ann. Rev. Immunol.* 16:323.