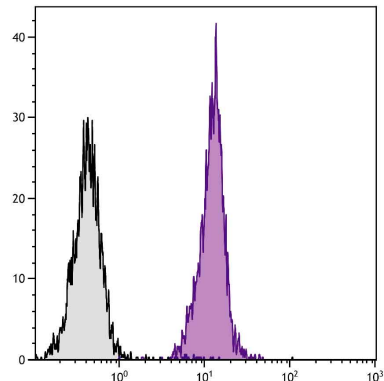




Mouse Anti-Mouse H-2D^b

Cat. No.	Format	Size
1910-01	Purified (UNLB)	0.5 mg
1910-02	Fluorescein (FITC)	0.5 mg
1910-08	Biotin (BIOT)	0.5 mg
1910-09	R-phycoerythrin (PE)	0.1 mg
1910-11	Allophycocyanin (APC)	0.1 mg
1910-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1910-30	Alexa Fluor [®] 488 (AF488)	0.1 mg



BALB/c mouse splenocytes were stained with Mouse Anti-Mouse H-2D^b-AF488 (SB Cat. No. 1910-30).

Overview

Clone	28-14-8
Isotype	Mouse (C3H) IgG _{2a} K
Immunogen	C3H.SW mouse splenocytes
Specificity	Mouse H-2D ^b
Alternate Name(s)	MHC Class I

Description

The "classical" MHC Class I molecules are histocompatibility antigens encoded by the H-2 gene complex and consist of heterodimers of highly polymorphic α chains noncovalently associated with the invariant β_2 -microglobulin. These antigens are expressed on most nucleated cells but expression varies on different cell types. MHC Class I molecules present endogenously synthesized peptides to CD8⁺ T lymphocytes which are usually cytotoxic T cells. MHC Class I antigens expressed on thymic epithelial cells regulate the positive and negative selection of CD8⁺ T cells during T cell ontogeny. The monoclonal antibody 28-14-8 binds to the $\alpha 3$ domain of H-2D^b in the presence or absence of β_2 microglobulin. It cross reacts with the $\alpha 3$ domain of H-2L^d, but not K^d or D^d, and with H-2D^a and/or L^a. The antibody has been shown to block H-2L^d-specific and H-2L^d-restricted antigen-specific lysis of target cells by cytotoxic T lymphocytes but it does not block recognition of H-2L^d-positive target cells by Ly-6G2-positive NK cells.

Applications

FC – Quality tested ^{4,7,8}
 IHC-FS – Reported in literature ⁴
 IP – Reported in literature ^{2,3}
 Block – Reported in literature ⁶
 CMCD – Reported in literature ^{1,5,6}

Working Dilutions

Flow Cytometry	Purified (UNLB) antibody	≤ 1 μ g/10 ⁶ cells
	FITC, BIOT, and AF488 conjugates	≤ 1 μ g/10 ⁶ cells
	PE conjugate	≤ 0.5 μ g/10 ⁶ cells
	APC conjugate	≤ 0.1 μ g/10 ⁶ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 μ L	
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- The Alexa Fluor® 488 (AF488) conjugate is supplied as 0.1 mg in 0.2 mL of PBS/NaN₃. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Ozato K, Hansen TH, Sachs DH. Monoclonal antibodies to mouse MHC antigens. II. Antibodies to the H-2L^d antigen, the products of a third polymorphic locus of the mouse major histocompatibility complex. J Immunol. 1980;125:2473-7. (Immunogen, CMCD)
2. Allen H, Fraser J, Flyer D, Calvin S, Flavell R. β_2 -microglobulin is not required for cell surface expression of the murine class I histocompatibility antigen H-2D^b or of a truncated H-2D^b. Proc Natl Acad Sci USA. 1986;83:7447-51. (IP)
3. Lie W, Myers NB, Connolly JM, Gorka J, Lee DR, Hansen TH. The specific binding of peptide ligand to L^d class I major histocompatibility complex molecules determines their antigenic structure. J Exp Med. 1991;173:449-59. (IP)
4. Levitsky HI, Lazenby A, Hayashi RJ, Pardoll DM. In vivo priming of two distinct antitumor effector populations: the role of MHC class I expression. J Exp Med. 1994;179:1215-24. (FC, IHC-FS)
5. Ozato K, Sachs DH. Monoclonal antibodies to mouse MHC antigens. III. Hybridoma antibodies reacting to antigens of the H-2^b haplotype reveal genetic control of isotype expression. J Immunol. 1981;126:317-21. (Immunogen, CMCD)
6. Woodward JG, Örn A, Harmon RC, Goodenow RS, Hood L, Frelinger JA. Specific recognition of the product of a transferred major histocompatibility complex gene by cytotoxic T lymphocytes. Proc Natl Acad Sci USA. 1982;79:3613-7. (CMCD, Block)
7. Wang R, Rogers AM, Ratliff TL, Russell JH. CD95-dependent bystander lysis caused by CD4⁺ T helper 1 effectors. J Immunol. 1996;157:2961-8. (FC)
8. Lee S, Bar-Haim E, Machlenkin A, Goldberger O, Volovitz I, Vadai E, et al. In vivo rejection of tumor cells dependent on CD8 cells that kill independently of perforin and FasL. Cancer Gene Ther. 2004;11:237-48. (FC)

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