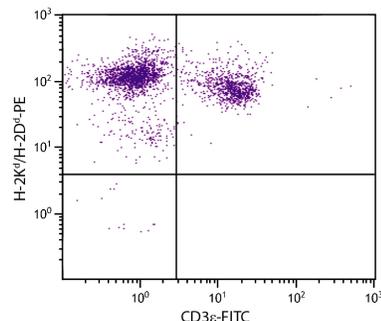




Mouse Anti-Mouse H-2K^d/H-2D^d

Cat. No.	Format	Size
1911-01	Purified (UNLB)	0.5 mg
1911-02	Fluorescein (FITC)	0.5 mg
1911-08	Biotin (BIOT)	0.5 mg
1911-09	R-phycoerythrin (PE)	0.1 mg



BALB/c mouse splenocytes were stained with Mouse Anti-Mouse H-2K^d/H-2D^d-PE (SB Cat. No. 1911-09) and Rat Anti-Mouse CD3 ϵ -FITC (SB Cat. No. 1535-02).

Overview

Clone	34-1-2S
Isotype	Mouse (C3H) IgG _{2a} K
Immunogen	BDF ₁ mouse splenocytes
Specificity	Mouse H-2K ^d /H-2D ^d
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 34-1-2S binds to a common determinant in the $\alpha 3$ domains of H-2K^d and H-2D^d in the presence or absence of β_2 microglobulin. It cross reacts with the $\alpha 3$ domain of H-2K^b.

Applications

FC – Quality tested^{3,4}
 ICC – Reported in literature^{3,5}
 EM – Reported in literature⁴
 IP – Reported in literature²
 CMCD – Reported in literature³
 Block – Reported in literature⁶
 Adhesion – Reported in literature⁶

Working Dilutions

Flow Cytometry	Purified (UNLB) antibody	$\leq 1 \mu\text{g}/10^6$ cells
	FITC and BIOT conjugates	$\leq 1 \mu\text{g}/10^6$ cells
	PE conjugate	$\leq 0.1 \mu\text{g}/10^6$ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL .	

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) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- 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 (M)SDS.

References

1. Ozato K, Mayer NM, Sachs DH. Monoclonal antibodies to mouse major histocompatibility complex antigens. IV. A series of hybridoma clones producing anti-H-2^d antibodies and an examination of expression of H-2^d antigens on the surface of these cells. *Transplantation*. 1982;34:113-9. (Immunogen)
2. Burgert H, Maryanski JL, Kvist S. "E3/19K" protein of adenovirus type 2 inhibits lysis of cytolytic T lymphocytes by blocking cell-surface expression of histocompatibility class I antigens. *Proc Natl Acad Sci USA*. 1987;84:1356-60. (IP)
3. Lenz A, Heufler C, Rammensee H, Glassl H, Koch F, Romani N, et al. Murine epidermal Langerhans cells express significant amounts of class I major histocompatibility complex antigens. *Proc Natl Acad Sci USA*. 1989;86:7527-31. (FC, ICC, CMCD)
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5. Abendroth A, Simmons A, Efsthathiou S, Pereira RA. Infection with an H2 recombinant herpes simplex virus vector results in expression of MHC class I antigens on the surfaces of human neuroblastoma cells in vitro and mouse sensory neurons in vivo. *J Gen Virol*. 2000;81:2375-83. (ICC)
6. Brennen J, Mager D, Jefferies W, Takei F. Expression of different members of the Ly-49 gene family defines distinct natural killer cell subsets and cell adhesion properties. *J Exp Med*. 1994;180:2287-95. (Block, Adhesion)