Technical Data Sheet Purified Mouse Anti-Mouse H-2D[d]

Product Information	
Material Number:	558915
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	34-5-88
Immunogen:	(C57BL/6 x DBA/2)F1 hybrid mouse splenocytes
Isotype:	Mouse (C3H) IgG2a, ĸ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The 34-5-8S antibody recognizes an epitope on the N-terminal domains, $\alpha 1$ and $\alpha 2$, of the H-2Dd. The mAb identifies a conformationally sensitive epitope of H-2Dd associated with $\beta 2$ microglobulin; it fails to react with free H-2D[d] α chains synthesized in vitro. Weak cross-reactivity with cells from mice of the H-2b, H-2q, and H-2s haplotypes has been observed by flow cytometric analysis. Reactivity with other haplotypes (e.g., *f, k, p, r*) has not been observed. mAb 34-5-8S has been reported to block the recognition of H-2Dd by Ly-49A+, C+, F+, G2+, or I+ NK cells or transfectants.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C. Application Notes

Application

Flow cytometry	Routinely Tested	
Cytotoxicity	Reported	
Immunoprecipitation	Reported	
Immunoaffinity Chromatography	Reported	
Blocking	Reported	
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended	

Recommended Assay Procedure:

For immunohistochemical staining (IHC) of frozen sections expressing MHC class I antigen of the *d* haplotype, we recommend the use of biotinylated anti-mouse H-2Kd mAb SF1-1.1, Cat. No. 553564.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553454	Purified Mouse IgG2a κ Isotype Control	0.5 mg	G155-178
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LETM (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References

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Chang CS, Kane KP. Evidence for sulfate modification of H-2Dd on N-linked carbohydrate(s): possible involvement in Ly-49A interaction. J Immunol. 1998; 160(9):4367-4374. (Clone-specific: Blocking)

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Evans GA, Margulies DH, Shykind B, Seidman JG, Ozato K. Exon shuffling: mapping polymorphic determinants on hybrid mouse transplantation antigens. *Nature*. 1982; 300(5894):755-757.(Biology)

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Orihuela M, Margulies DH, Yokoyama WM. The natural killer cell receptor Ly-49A recognizes a peptide-induced conformational determinant on its major histocompatibility complex class I ligand. Proc Natl Acad Sci U S A. 1996; 93(21):11792-11797. (Clone-specific: Blocking)

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Ozato K, Sachs DH. Monoclonal antibodies to mouse MHC antigens. III. Hybridoma antibodies reacting to antigens of the H-2b haplotype reveal genetic control of isotype expression. *J Immunol.* 1981; 126(1):317-321.(Immunogen: Cytotoxicity)