

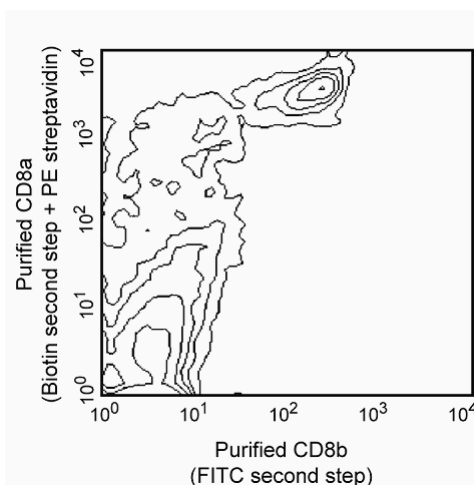
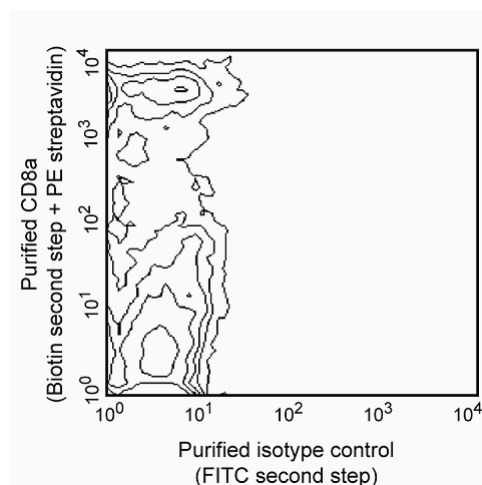
Technical Data Sheet

Purified Mouse Anti-Rat CD8b**Product Information**

Material Number:	554971
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	341
Immunogen:	CD8-positive Wistar rat splenic T-cell hybridomas
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The 341 antibody reacts with the β chain of the CD8 antigen on most thymocytes and a subpopulation of mature T lymphocytes (ie, MHC class I-restricted T cells, including most T suppressor/cytotoxic cells). The CD8 α and β chains (CD8a and CD8b, respectively) form a heterodimer on the surface of most thymocytes and thymus-dependent T suppressor/cytotoxic cells, whereas intestinal intraepithelial lymphocytes, many CD8+ T cells of athymic rats, many activated CD4+ T cells, and most NK cells express CD8a without CD8b. It has been suggested that the expression of the CD8a/CD8b heterodimer is restricted to thymus-derived T lymphocytes. CD8 is an antigen co-receptor on the T cell surface which interacts with MHC class I molecules on antigen-presenting cells. It participates in T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase lck. Macrophages have also been reported to express CD8 α and β chains, which are involved in signal transduction. The 341 mAb blocks proliferative and cytotoxic in vitro responses of CD8+ effectors to allogeneic cells.



The expression of CD8b on rat splenocytes. Single-cell suspensions of Lewis splenocytes were simultaneously stained with purified anti-mouse CD8a mAb G28 (Cat. No. 559977) and purified mAb 341 (Right panel), followed by biotinylated anti-mouse IgG2a mAb R19-15 (Cat. no. 553388), FITC-conjugated anti-mouse IgG1 mAb A85-1 (Cat. no. 553443), and Streptavidin-PE (Cat. no. 554061). Note that the CD8a^{dim}CD8b⁻ population represents NK cells. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

Store undiluted at 4° C.

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

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Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-zinc-fixed	Tested During Development
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported
Western blot	Reported
Stimulation	Reported
Blocking	Reported

Recommended Assay Procedure:

Other reported applications include immunoprecipitation, western blot analysis, in vitro blocking of allogeneic responses, immunohistochemical staining of acetone-fixed frozen and zinc-fixed paraffin-embedded sections, and stimulation of macrophages.

Suggested Companion Products

Catalog Number	Name	Size	Clone
557273	Purified Mouse IgG1, κ Isotype Control	0.5 mg	MOPC-31C
553443	FITC Rat Anti-Mouse IgG1	0.5 mg	A85-1

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. 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/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
4. 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.

References

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Torres-Nagel N, Kraus E, Brown MH, et al. Differential thymus dependence of rat CD8 isoform expression.. *Eur J Immunol.* 1992; 22(11):2841-2848.(Immunogen: Blocking, Immunoprecipitation, Western blot)