

Technical Data Sheet

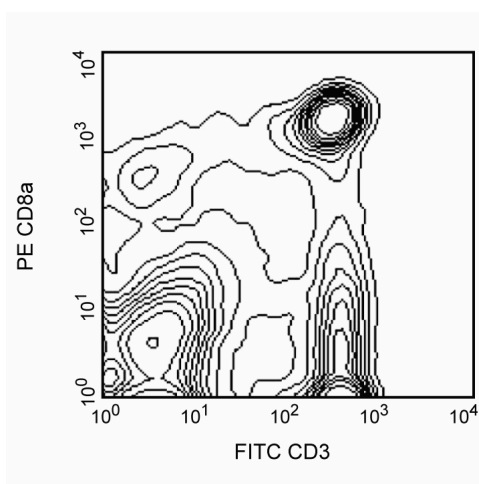
PE Mouse Anti-Rat CD8a

Product Information

Material Number:	559976
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	OX-8
Immunogen:	High-molecular-weight rat thymocyte glycoproteins
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The OX-8 antibody reacts with the hinge-like membrane-proximal domain of the 32 kDa α chain of the CD8 differentiation antigen. A truncated CD8 α' isoform has not been detected in the rat. The CD8 α and β chains (CD8a and CD8b, respectively) form a heterodimer on the surface of most thymocytes and a subpopulation of mature T lymphocytes (i.e., MHC class I-restricted T cells, including most T suppressor/cytotoxic cells). 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. OX-8 antibody does not react with resting CD4+ T helper cells. CD8 is an antigen coreceptor 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. Soluble OX-8 mAb partially blocks in vitro MLR and CTL activity.



The expression of CD8a on rat splenocytes. Single-cell suspensions of LOU splenocytes were stained with PE-conjugated mAb OX-8 and FITC-conjugated anti-rat CD3 mAb G4.18 (Cat. No. 559975/554832). Note that the CD8a+CD3- population represents NK cells. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
559975	FITC Mouse Anti-Rat CD3	0.1 mg	G4.18
550617	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-31C

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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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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. (Clone-specific: Blocking, Immunoprecipitation, Western blot)
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