Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD1d

Product Information

Material Number:	**559438**
Alternate Name:	CD1.1, Ly-38
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	1B1
Immunogen:	Mouse Cd1.1 cDNA-transfected RMA-S mouse T lymphoma and mouse L929 cells
Isotype:	Rat (LEW) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2μm sterile filtered. Endotoxin level is ≤0.01 EU/μg (≤0.001 ng/μg) of protein as determined by the LAL assay.

Description

The 1B1 antibody reacts with CD1d, a 48-kDa glycoprotein with structural homology to the major histocompatibility complex (MHC) class I molecules. The structure, expression, and functions of CD1 antigens are complex and have been reviewed. mAb 1B1 detects CD1d at varying levels on most types of bone marrow and peripheral leukocytes and on epithelial, dendritic, and lymphoid cells in the thymus. It appears to recognize CD1d only in association with β2m. CD1d has been reported to be expressed by gastrointestinal tract epithelium and in the cytoplasm of hepatocytes as detected via immunohistochemical staining of frozen sections with mAb 3C11 (Cat. No. 559871, for the purified antibody), suggesting a possible role for CD1d in mucosal immunity. However, CD1d expression was not detectable, via flow cytometry, on intestinal epithelial cells in studies using the anti-CD1d mAbs 3C11, 1B1, and 9C7. The 1B1 antibody competes with mAb 3C11 in binding to mouse splenocytes.

Preparation and Storage

Store undiluted at 4°C.

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

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Blocking	Reported
Immunoprecipitation	Reported

Recommended Assay Procedure:

Reported applications include immunoprecipitation, blocking of in vitro antigen-mediated stimulation of NK1+T cells, blocking of in vitro responses of some T cells to CD1d1, (possibly to the β2m-associated form of CD1d, but not to β2m-independent CD1d4), and in vivo inhibition of TGF-β2 production. mAb 3C11 (Cat. no. 559871) has been reported to inhibit responses of some T cells to both β2m-associated and β2m-independent forms of CD1d.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553985	Purified NA/LE Rat IgG2b, κ Isotype Control	0.5 mg	A95-1
554016	FITC Goat Anti-Rat Ig	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.

References

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Brossay L, Jullien D, Cardell S, et al. Mouse CD1 is mainly expressed on hemopoietic-derived cells. *J Immunol.* 1997; 159(3):1216-1224. (Immunogen: Blocking, Immunoprecipitation)

Kawano T, Cui J, Koezuka Y, et al. CD1d-restricted and TCR-mediated activation of valpha14 NKT cells by glycosylceramides. *Science.* 1997; 278(5343):1626-1629. (Clone-specific: Stimulation)

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Sydora BC, Brossay L, Hagenbaugh A, Kronenberg M, Cheroutre H. TAP-independent selection of CD8+ intestinal intraepithelial lymphocytes. *J Immunol.* 1996; 156(11):4209-4216. (Biology)
Szalay G, Ladel CH, Blum C, Brossay L, Kronenberg M, Kaufmann SH. Cutting edge: anti-CD1 monoclonal antibody treatment reverses the production patterns of TGF-beta 2 and Th1 cytokines and ameliorates listeriosis in mice. *J Immunol.* 1999; 162(12):6955-6958. (Clone-specific: Inhibition)