Technical Data Sheet

Purified Mouse Anti-Rat CD4

Product Information

 Material Number:
 554835

 Size:
 0.5 mg

 Concentration:
 0.5 mg/ml

 Clone:
 OX-35

Immunogen: Rat T-cell blasts

Isotype: Mouse (BALB/c) IgG2a, κ

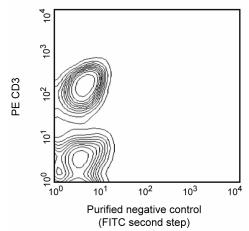
Reactivity: QC Testing: Rat

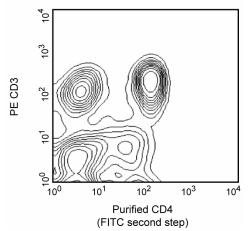
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The OX-35 clone has been reported to react with the CD4 antigen on most thymocytes, a subpopulation of mature T lymphocytes (i.e. MHC class II-restricted T cells, including most T helper cells), monocytes, macrophages, some dendritic cells, and microglia. CD4 is an antigen coreceptor on the T-cell surface that interacts with MHC class II molecules on antigen-presenting cells. It participates in T-cell activation through it's association with the T-cell receptor complex and protein tyrosine kinase lck. The OX-35 clone has been reported to bind to a different epitope of CD4 than that recognized by the W3/25 and OX-38 clones.

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.





Two-color analysis of the expression of CD4 on rat splenic leukocytes. Lewis splenocytes were simultaneously stained with purified anti-rat CD4 mAb clone OX-35 (right panel) and PE-conjugated anti-rat CD3 mAb clone G4.18 (Cat. No. 554833), followed by FITC-conjugated anti-mouse IgG2a mAb R19-15 (Cat. No. 553390). The CD3-negative CD4-dim cells are the monocyte/macrophage population. 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. Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
Immunoprecipitation	Reported
Depletion	Reported

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Recommended Assay Procedure:

Caution: 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 effect the results of functional studies, we recommend the NA/LETM (No Azide/Low Endotoxin) antibody format for in vitro and in vivo use.

Suggested Companion Products

Catalog Number	Name	Size	Clone	
553454	Purified Mouse IgG2a κ Isotype Control	0.5 mg	G155-178	
554841	Purified Mouse Anti-Rat CD4	0.5 mg	OX-38	
553390	FITC Anti-Mouse IgG2a	0.5 mg	R19-15	
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18	

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.
- 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

Banuls MP, Alvarez A, Ferrero I, Zapata A, Ardavin C. Cell-surface marker analysis of rat thymic dendritic cells. *Immunology*. 1993; 79(2):298-304.(Biology) Bierer BE, Sleckman BP, Ratnofsky SE, Burakoff SJ. The biologic roles of CD2, CD4, and CD8 in T-cell activation. *Annu Rev Immunol*. 1989; 7:579-599.(Biology) Ford AL, Foulcher E, Goodsall AL, Sedgwick JD. Tissue digestion with dispase substantially reduces lymphocyte and macrophage cell-surface antigen expression. *J Immunol Methods*. 1996; 194(1):71-75.(Biology: Depletion)

Janeway CA Jr. The T cell receptor as a multicomponent signalling machine: CD4/CD8 coreceptors and CD45 in T cell activation. *Annu Rev Immunol.* 1992; 10:645-674.(Biology)

Jefferies WA, Green JR, Williams AF. Authentic T helper CD4 (W3/25) antigen on rat peritoneal macrophages.. *J Exp Med.* 1985; 162:117-127.(Immunogen: Immunoprecipitation)

Liu L, Zhang M, Jenkins C, and MacPherson GG. Dendritic cell heterogeneity in vivo: Two functionally different dendritic cell populations in rat intestinal lymph can be distinguished by CD4 expression. *J Immunol.* 1998; 161:1146-1155.(Biology)

McElwee KJ, Spiers EM, Oliver RF. Partial restoration of hair growth in the DEBR model for Alopecia areata after in vivo depletion of CD4+ T cells. *Br J Dermatol.* 1999; 140(3):432-437.(Clone-specific: Depletion)

Morrison WJ, Kennedy NJ, Offner H, Vandenbark AA. Effects of anti-CD4 antibody: enhancement of lymph node PPD-memory T cell response. *Cell Immunol.* 1995; 163(1):106-112. (Clone-specific: Depletion)

Wang CC, Wu CH, Shieh JY, Wen CY, Ling EA. Immunohistochemical study of amoeboid microglial cells in fetal rat brain. J Anat. 1996; 189(3):567-574.(Biology)

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