Technical Data Sheet

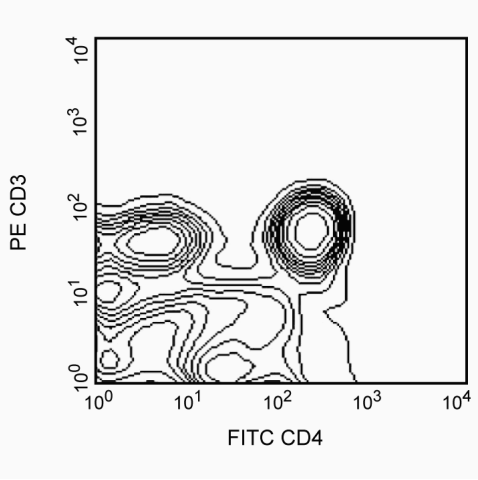
FITC Mouse Anti-Rat CD4

Product Information

Material Number:	**561833**
Alternate Name:	Cd4; CD4 antigen; p55; W3/25 antigen; T-cell surface glycoprotein CD4
Size:	50 µg
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.



Two-color analysis of the expression of CD4 on rat splenic leukocytes. *Lewis splenocytes were simultaneously stained with FITC Mouse anti-Rat CD4 (Clone OX-35) and FITC Mouse anti-Rat CD4 (Cat. No. 554833). 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

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

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

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18
553456	FITC Mouse IgG2a, κ Isotype Control	0.25 mg	G155-178
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

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4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. An isotype control should be used at the same concentration as the antibody of interest.

References

Bañuls 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, 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(3):1146-1155. (Biology)

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)