

anti-rat CD4 FITC-conjugated**Cat-No.: R32126F****1 ml****Clone: W3/25**

Specificity: This anti-rat CD4 monoclonal antibody recognizes a determinant on the majority of thymocytes (90-95%), a subset of peripheral T cells and peritoneal macrophages. The antigen recognized by this antibody is a surface glycoprotein of Mr 48,500-52,000 and is the homologue of the human CD4 and the mouse L3/T4 antigen. This antibody labels the rat helper subset, which mediates the helper activity for B and T cells, graft vs. host (GVH) reactivity and produces IL-2 in the mixed lymphocyte reaction (MLR). Addition of it to the MLR, inhibited proliferation and blocks the production of IL-2. T cells which mediate cytotoxicity and suppressor functions are not labelled (Thus, cells labelled by this antibody are not labelled by MRC OX-8 (CD8a)). This antibody is invaluable for separating T cell subsets for functional studies and for labelling cells in tissue sections. It has been used in studying the role of T lymphocytes in graft rejections and in studying the subsets of T cells in the rat which mediate GVH disease. This particular antibody is also one of three antibodies which labels T lymphocyte populations in the rat. These clones include W3/13 which labels all T cells, as well as MRC OX8 and W3/25 which label non-overlapping T cell subpopulations. These monoclonal antibodies used in concert are being employed extensively to investigate cellular aspects of the immune response in rats and prove to be useful as markers for functionally distinct subpopulations of lymphocytes.

Isotype subclass: Mouse IgG 1**Form:** Purified via Protein G chromatography. Conjugated with FITC.**Physical state:** Liquid**Buffer/Additives/Preservative:** PBS containing 1 % BSA and 0.09 % sodium azide (pH 7.4).**Expiration date:** The reagent is stable until the expiry date stated on the vial label.**Storage conditions:** Store at 4 °C. Do not freeze. Avoid prolonged exposure to light.**Application:** Flow Cytometry**References:**

1. Williams, A.F., Galfe and C. Milstein (1997), Analysis of cell surfaces by xenogeneic myeloma-hybrid antibodies: Differentiation antigens of rat lymphocytes, *Cell* **12**, 633-673
2. Brideau, R.J. et al. (1980), Two subsets of rat T lymphocytes defined with monoclonal antibodies, *Eur.J.of Immunol.* **10**, 609-615
3. Barclay, A.N. (1981), The localization of populations of lymphocytes defined with monoclonal antibodies in rat lymphoid tissues, *Immunology* **45**, 593-600
4. Cantrell, D.A. Robins, R.A. and R.W. Baldwin (1982), Rat lymphocyte subsets: Cellular requirements for the generation of T cell growth factors, *Cell Immunol.* **70**, 367-372
5. Mason, D.W., Pugh, C.W. and M. Webb (1981), The rat mixed lymphocyte reaction: roles of dendritic cells in intestinal lymph and T cell subsets defined by monoclonal antibodies, *Immunology* **44**, 75-87
6. Webb, M., Mason, D.W. and A.F. Williams (1982), Inhibition of mixed lymphocyte response by monoclonal antibody specific for rat T lymphocyte subset, *Nature* **282**, 841-843
7. Dallman, M.J., Mason, D.W. and M. Webb (1982), The role of host and donor cells in the rejection of skin allografts by T cell deprived rats injected with syngeneic T cells, *Eur.J.of Immunol.* **12**, 511-518
8. Mason, D.W. (1981) subsets of T cells in the rat mediating lethal graft vs host disease, *Transplantation* **32**, 222-226
9. White R. A. H., Mason, D., Williams, A.F. and Galfe and C. Milstein (1978) T lymphocyte heterogeneity in the rat: separation of functional sub-populations using a monoclonal antibody, *J.Exp.Med.* **148**, 644-673
10. Jefferies, W.A., Green, J.R. and A.F. Williams (1985), Authentic T helper CD4 (W3/25) antigen on rat peritoneal macrophages, *J.Exp.Med.* **162**, 117-127

Warning:

Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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