

anti-rat CD4**Cat-No.: R32126****0.1 mg****Clone:** W3/25

Specificity: This anti-rat T helper cell monoclonal antibody recognizes a determinant on the majority of thymocytes (90-95%), a subset of peripheral T cells and peritoneal macrophages. (1,2,3,10.) The antigen recognized by this antibody is a surface glycoprotein of Mr 48 000 – 52 000 and is the homologue of the human CD4 and the mouse L3/T4 antigen. This antibody labels the rat T helper subset, which mediates the helper activity for B and T cells, grafts vs. host (GVH) reactivity and produces IL-2 in the mixed lymphocyte reaction (MLR). (2,4,6) Addition of the antibody to the MLR, inhibited proliferation and blocks the production of IL-2. (4,5,6,9) T cells which mediate cytotoxicity and suppressor functions are not labelled. (Thus, cells labelled by this antibody are not labelled by MRC OX-8.) This clone is invaluable for separating T cell subsets for functional studies. It has been used in studying the role of T lymphocytes in graft rejection (7) and in studying the subsets of T cells in the rat which mediate graft vs. host disease. (8). This antibody is one of three antibodies which label T lymphocyte populations in the rat. These clones include W3/13, which labels all T cells, as well as MRC OX-8 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 of functionally distinct subpopulations of lymphocytes.

Isotype subclass: Mouse IgG 1**Form:** purified**Physical state:** Liquid**Buffer/Additives/Preservative:** PBS containing 0.09 % sodium azide (pH 7.4).**Expiration date:** The reagent is stable until the expiry date stated on the vial label.**Storage conditions:** For long term storage, aliquot and freeze unused portion at –20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles.**Application:**

Flow Cytometry

Immunohistochemistry - The clone W3/25 is reported to work with frozen and paraffin sections (11).

References:

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2. Bredeau, R.J., Carter, P.B., McMaster, W.R., Mason, D.W. and A.F. Williams. (1980) Eur. J of Immunol., 10, 609-615.
3. Barclay, A.N. (1981) Immunology, 42, 593-600.
4. Cantrell, D.A., Robins, R.A. and R.W. Baldwin. (1982) Cell Immunol. 70, 367-372.
5. Mason, D.W., Pugh, C.W. and M. Webb. (1981) Immunology, 44, 75-87.
7. Dallman, M.J., Mason, D.W. and M. Webb. (1982) Eur. J. Immunol. 12, 511-518
8. Mason, D.W. (1981) Transplantation, 32, 222-226.
9. White, R.A.H., Mason, D.W., Williams, A.F., Galfre, G. and C. Milstein. (1978) J. Exp. Med. 148, 644-673
10. Jefferies, W.A., Green, J.R. and A.F. Williams. (1985) J. Exp. Med. 162, 117-127.
11. Whiteland, J.L. et al (1995). J.Histochem. Cytochem. 43: 313-320

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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