

anti-mouse/rat CD90 (Thy 1.1) FITC-conjugated**Cat-No.: M22136F** **1 ml****Clone:** MRC OX-7

Specificity: anti-rat CD90 (Thy 1.1) monoclonal antibody recognizes the Thy 1.1 antigenic determinant, designated CD90 on rat as well as mouse cells. This particular determinant has been defined to be monomorphic within rats but polymorphic in the mouse. This antibody reacts with Thy 1.1 mice (ie. AKR) but not Thy 1.2 mice (ie. CBA, BALB/c). The affinity of the F(ab) of this antibody for rat Thy-1 is $3 \times 10^9 \text{ M}^{-1}$ and for mouse Thy 1.1 is $3 \times 10^8 \text{ M}^{-1}$ (1). The Thy-1 antigen is found on a variety of cell types including thymocytes, neuronal cells (mouse, rat) (8), T and immature B cells (rat), breast epithelial cells (rat) (6), and connective tissue (2). This antibody has been used to determine that the Thy 1.1 molecule is a glycoprotein with 112 amino acids which is homologous to immunoglobulin domains (3). The Thy-1 antigen is found on a diversity of cell types (4) and thus it can be used as a cell marker. Furthermore, the binding characteristics of this antibody have been extensively studied (1) and it appears to be an excellent antibody for studying the killing of Thy 1.1 positive tumour cells with Ab-toxin conjugates (5). The antibody can be coupled to Sepharose-4B and used to effectively purify mouse Thy 1.1 and rat Thy 1.1 antigens. Also, this antibody can be used in vitro for the activation of leukocytes (10) and in vivo for the induction of glomerulonephritis (11, 12).

Isotype subclass: Mouse IgG1**Form:** Purified from ascitic fluid via Protein G Chromatography, FITC conjugated**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. Mason, D.W. and A.F. Williams. (1980) *Biochemical J.* 187, 1-20. The Kinetics of antibody binding to membrane antigens in solution and at the cell surface. 2. Campbell, D.G., Gagnon, J., Reid, K.B.M. and A.F. Williams. (1981) *Biochemical J.* 195, 15-30. Rat brain Thy-1 glycoprotein. 3. Williams, A.F. and J. Gagnon. (1982) *Science* 216, 696-703. Neuronal cell Thy-1 glycoprotein: homology with immunoglobulin. 4. Williams, A.F., Barclay, A.N., Letarte-Muirhead, M. and R.J. Morris. (1976). *ColdSpring Harbour Symposium on Qualitative Biology.* 41, 51-61. Rat Thy-1 antigen from thymus and brain: their tissue distribution, purification and chemical composition. 5. Neville, D.M. and R.J. Youle. (1982) *Immunol. Review* 62, 75. Monoclonal antibody ricin or ricin-A chain hybrids: kinetic analysis of cell killing for tumour therapy. 6. Dulbecco, R., Bologna, M. and M. Unga. (1979) *Proc. Nat'l. Acad. Sci.* 76, 1948. Role of Thy-1 antigen in the in vitro differentiation of rat mammary cell line. 7. Raff, M.C. (1971) *Transplan. Rev.* 6, 52-80. Surface antigenic markers for distinguishing T and B lymphocytes in mice. 8. Barclay, A.N. and H. Hyden. (1978) *J. Neurochem.* 31, 1375-1391. Localization of the Thy-1 antigen in rat brain and spinal cord by immunofluorescence. 9. Hunt, S.B., Mason, D.W. and A.F. Williams. (1977) *Eur. J. Immuno.* 7, 817-823. In rat bone marrow Thy-1 antigen is present on cells with membrane immunoglobulin and on precursors of peripheral B lymphocytes.

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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