anti-mouse/rat CD90 (Thy 1.1) PE-conjugated

PE- conjugated monoclonal antibody MRC OX-7 to mouse CD90

Cat-No: **22150904** 500 µl

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 $3x10^9$ M^{-1} and for mouse Thy 1.1 is $3x10^8$ M^{-1}. The Thy-1 antigen is found on a variety of cell types including thymocytes, neuronal cells (mouse, rat), T and immature B cells (rat), breast epithelial cells (rat) and connective tissue. 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. The Thy-1 antigen is found on a diversity of cell types and thus it can be used as a cell marker.

Isotype subclass: Mouse IgG1

Form: The purified antibody is conjugated with R-Phycoerythrin (R-PE) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 1 % BSA and 0.09 % sodium azide (pH 7.2).

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4 °C. Avoid prolonged exposure to light.

Application: Flow Cytometry

Background: CD90 (Thy-1) is an 18-35 kDa GPI-anchored plasma membrane glycoprotein expressed in many cell types, such as in hematopoietic cells and neurons, connective tissues, various fibroblast and stromal cell lines, tumor endothelial cell lines and other. In the mouse, CD90 is expressed mainly on thymocytes and peripheral T lymphocytes. It is involved in T cell activation, cellular adhesion, proliferation and migration, neurite outgrowth, wound healing, apoptosis, and fibrosis. CD90 participates in multiple signaling cascades and its effects are tissue- and cell type-specific. It often functions as an important regulator of cell-cell and cell-matrix interactions.

References:

1. Campbell, D.G., Gagnon, J., Reid, K.B.M. and A.F. Williams. (1981) Biochemical J. 195, 15-30.
2. Williams, A.F. and J. Gagnon. (1982) Science 216, 696-703.
3. Neville, D.M. and R.J. Youle. (1982) Immunol. Review 62, 75.
4. Dulbecco, R., Bologna, M. and M. Unga. (1979) Proc. Nat'l. Acad. Sci. 76, 1948.

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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