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**Mouse Anti-Human CD3-PE-Cy5-conjugate**

**Catalog #**      **CD03PC-100**    **SIZE: 100** Tests  
**Catalog #**      **CD03PC-25**        **SIZE: 25** Tests

**PRODUCT INFORMATION**

**CLONE:**            HIT3a  
**ISOTYPE:**        Mouse IgG2a,  $\kappa$   
**WS.No.:**         5T CD03.05  
**OTHER RECOMMENDED CLONE:**  
HIT3b , Mouse IgG1

**Product Forms:** Purified, FITC conjugation, PE conjugation, PE-Cy5 conjugation.

**DESCRIPTION**

CD3 McAb recognizes the 17-19 KD $\epsilon$ -chain and reacts with this  $\epsilon$ -chain of the CD3 antigen/T cell antigen receptor(TCR) complex. CD3 antigen appears in the cytoplasm of the cell during the early stage of T cell development and is expressed on the cell membrane at the late stage. CD3 antigen is present on 60%-80% of normal peripheral blood lymphocytes and 60%-70% of thymocytes and plays an important role in signal transduction after antigen recognition by TCR. HIT3a McAb at ng level has a strong mitogenic effect on T lymphocyte proliferation (in soluble or immobilized conditions) and has a immunosuppressive effect at high dose. HIT3b McAb has a strong mitogenic effect on T lymphocytes proliferation only under immobilized condition. In addition, NK cells express CD3 chain in the cytoplasm, and CD3 McAb provide a tool for analyzing the development relationship and the common precursor of both T cells and NK cells.

**PREPARATION**

The monoclonal antibody is purified from ascites by protein G affinity chromatography and is conjugated with FITC, R-PE, PE-Cy5 under optimum conditions.

**USAGE**

The purified reagent is effective for indirect immunofluorescence staining of human cells for flow cytometric analysis and is tested for immunohistochemical staining of acetone-fixed frozen sections.

The conjugated reagent (FITC, R-PE) is tested for flow cytometric analysis using 20 $\mu$ l/10<sup>6</sup> cells or 100 $\mu$ l peripheral blood cells.

The conjugated reagent (PE-Cy5) is tested for flow cytometric analysis using 10 $\mu$ l/10<sup>6</sup> cells or 100 $\mu$ l peripheral blood cells.

**STORAGE**

For purified forms, long term storage at -20oC.

For conjugated forms, storage at 4oC, should not be frozen and avoid prolonged exposure to light.

**REFERENCES**

1. Shen DC., Yang XF., Yung CY., et al., 1993. A high affinity CD3 monoclonal antibody HIT3a I. production and indentification. ACTA Academiae Medicinae Sinicae. 15(3):157
2. Schlossman S., L. Bloumsell, W. Gilks, et al., eds. 1995. Leucocyte Typing : White Cell Differentiation Antigens. P: 245, 262 Oxford University Press, New York.
3. Tadimitsu K, K.Hitoshi, A.E.G.Kr.van dem Borne, et al., eds. 1997. Leucocyte Typing : White Cell Differentiation Antigens. P: 44—48 Garland Publishing, Inc., New York.