

Monoclonal anti-human CD3 ϵ /Biotin*

mAb name/Clone: UCHT1

Isotype: Mouse IgG1

Immunogen: Human thymocytes/Sezary T cells

CATALOG#: 144-030

QUANTITY: 100 μ g

CONCENTRATION: 1.0 mg/ml

INFORMATION: The human CD3/T cell receptor (TcR) complex is made up of at least five CD3 proteins (γ , δ , ϵ , η , ζ) in association with either α/β or γ/δ proteins of the TcR. The TcR recognizes antigens in association with MHC molecules after which protein chains of the CD3 complex mediate activation signals triggered by TcR antigen binding. CD3 is expressed on greater than 95% of circulating human peripheral T cells. Antibody UCHT1 recognizes the 20 kd epsilon chain of the CD3 molecule complex. Antibody UCHT1 will activate T cells expressing CD3 ϵ .

References: P.C. L. Beverly & R.E. Callard, Eur J Immunol (1981) **11**: 329-334. Leukocyte Typing IV (W. Knapp, et al, eds.) Oxford University Press, Oxford, (1989) p. 290-314. A. Salmeron, et al, (1991) J Immunol **147**: 3047-3052. G. Thibault & P. Bardos, (1995) J Immunol **154**: 3814-3820.

STORAGE CONDITIONS: Store at 2 - 5°C. Freeze/thawing not recommended.

PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: _____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Antibody from (low FBS containing) tissue culture supernatant was Protein A purified to >95% mouse immunoglobulin by SDS-PAGE (<1% bovine immunoglobulin), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

PERFORMANCE: Five x 10⁵ ficoll prepared human PBMC were washed and incubated 45 minutes on ice with 80 μ l of anti-CD3/Biotin at a concentration of 5 μ g/ml. Cells were washed twice and incubated with 2^o reagent Streptavidin/R-Phycoerythrin (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS using a lymphoid gate. An **81% sub population** of the cells stained positive with a mean shift of **2.16 log₁₀** fluorescent units when compared to a Mouse IgG1/Biotin negative control (Catalog #278-030). Binding was blocked when cells were pre incubated 10 minutes with anti-CD3 antibody (Catalog #144-020).

* **Research Use Only. Not for use in Diagnostic procedures.**

Binding of anti-CD3/Biotin +SA/PE to human PBL

