

PERFORMANCE DATA SHEET

1916

Monoclonal anti-human CD3ε/R-PE*

mAb name/Clone: UCHT1

Isotype: Mouse IgG1

Immunogen: Human thymocytes/Sezary T cells

CATALOG#: 144-050

QUANTITY: 120 tests

VOLUME IN VIAL: 0.2 ml

WORKING DILUTION: 1:50 (or use 1.6µl of concentrated stock per 5 x 10⁵-cell test)

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 will recognize the 20 kd epsilon chain of the CD3 molecule complex. Antibody UCHT1 will activate T cells expressing CD3ε.

References: P.C.L. Beverly & R.E. Callard, (1981) Eur J Immunol **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. Do not freeze! Protect from light.

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, 500 mM Potassium Chloride, 150mM NaCl, 15% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Protein A purified antibody from tissue culture supernatant was conjugated to R-Phycoerythrin through a sulfo-ester linkage. Unconjugated antibody was removed using size exclusion chromatography.

Antibody conjugate is at 500 µg/ml with an A₅₆₅/A₂₈₀ ratio of 3.04.

PERFORMANCE: Five x 10⁵ cultured HPB-MLT cells were washed and pre incubated ~5 minutes with 20 µl of 250 µg/ml human IgG (to block nonspecific binding) after which they were incubated 45 minutes on ice with 80 µl of anti-CD3/R-PE at a dilution factor of 1:50 (10 µg/ml). Cells were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 2.34 log₁₀ fluorescent units when compared to a Mouse IgG1/R-PE negative control (Catalog #278-050) at a similar concentration. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-CD3 antibody (Catalog #144-020).

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

Binding of anti-CD3/PE to human HPB-MLT cells

