

PERFORMANCE DATA SHEET

1938

Monoclonal anti-human CD4/PE-Cy7*

mAb name/Clone: QS4120

Isotype: Mouse IgG1

Immunogen: CD4+ transfectant / human CEM

CATALOG#: 147-070

QUANTITY: 120 tests

VOLUME IN VIAL: 0.2ml

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

INFORMATION: Human CD4 is a cell surface glycoprotein of 55 kd expressed on most thymocytes, on about two thirds of peripheral T cells, and on some monocyte macrophage lineage cells. CD4 interacts with MHC Class II molecules in an accessory role during foreign antigen recognition by T cells. The extracellular portion of CD4 is an array of four Ig-like domains. The amino terminal region of CD4 is a receptor for the HIV-1 viral protein gp120. Antibody QS4120 recognizes the domain 1 region of the CD4 molecule. Antibody QS4120 will block binding of HIV-1 gp120 protein to CD4 and also blocks HLA Class II Rosette formation.

References: D. Healey, et al, (1990) J Exp Med **172**: 1233-1242. Leukocyte Typing IV (W. Knapp, et al, eds.) Oxford University Press, Oxford, (1989) p. 314-330. Leukocyte Typing V (S.F. Schlossman, et al, eds.) Oxford University Press, Oxford, (1995) p. 476-478. R. König, et al, (1995) J Exp Med **182**: 779-787.

FLORESCENCE: PE-Cy7 is excited by 488 laser. Its E_{max} is 785nm.

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 Cy7-linked R-Phycoerythrin through a sulfo-ester linkage. Unconjugated antibody was removed using size exclusion chromatography. Antibody conjugate is at 250 µg/ml.

PERFORMANCE: Reagent was tested for binding to ficoll prepared human peripheral blood mononuclear cells (PBMC) in FACS. Five x 10⁵ PBMC per tube were washed and pre incubated with 20 µl of 300 µg/ml human IgG (to block non specific binding), after which they were incubated 45 minutes on ice with 80 µl of anti-human CD4/PE-Cy7 at a 1:50 dilution (5 µg/ml). Cells were then washed three times, fixed and analyzed by FACS using a lymphoid gate. A 41% sub population of the cells stained positive with a mean shift of 2.0 log₁₀ fluorescent units when compared to background. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-human CD4 antibody (Catalog #147-020).

* *Research Use Only. Not for use in Diagnostic procedures.*
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Binding of anti-human CD4/PE-Cy7 to human PBL

