## PERFORMANCE DATA SHEET <sup>1938</sup> *Monoclonal* anti-human CD4/PE-Cy7\*



*mAb name/Clone:* **QS4120** *Isotype:* Mouse IgG1 *Immunogen:* CD4+ transfectant / human CEM

## CATALOG#: 147-070 QUANTITY: 120 tests WORKING DILUTION: 1:50 (or use 1.6µl of concentrated stock per 5 x 10<sup>5</sup>-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<sub>max</sub> is 785nm.

## **STORAGE CONDITIONS:** Store at 2 - $5^{\circ}C$ . 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:\_\_\_\_\_\_

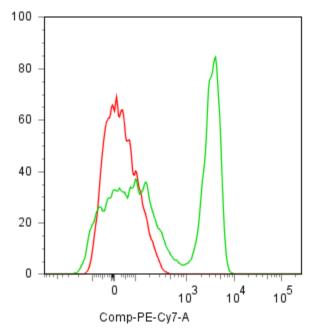
**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 500 mM Potassium Chloride, 150mM NaCl, 15% Glycerol, 0.2% BSA, 0.04% NaN<sub>3</sub> (as a preservative).

**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  $250 \ \mu g/ml$ .

**PERFORMANCE:** Reagent was tested for binding to ficoll prepared human peripheral blood mononuclear cells (PBMC) in FACS. Five x  $10^5$  **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 antihuman 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 log<sub>10</sub> 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).

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## Binding of anti-human CD4/PE-Cy7 to human PBL



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