

PERFORMANCE DATA SHEET

1448

Monoclonal anti-human CD4/APC*

mAb name/Clone: QS4120

Isotype: Mouse IgG1

Immunogen: CD4+ transfectant / human CEM

CATALOG#: 147-060

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: 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.

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 Allophycocyanin through a sulfo-ester linkage. Unconjugated antibody was removed using size exclusion chromatography. Antibody conjugate is at **0.25 mg/ml**, with an A₆₅₀/A₂₈₀ ratio of 1.41.

PERFORMANCE: Five x 10⁵ ficoll prepared human peripheral blood leukocytes were washed and preincubated 5 minutes with 20 µl of 0.3 mg/ml human IgG (to block non specific binding) after which they were incubated 45 minutes on ice with 80 µl of anti-CD4/APC at a 1:50 dilution (5 µg/ml). Cells were washed three times, fixed and analyzed by FACS. A 35% sub population stained positive with a mean shift of **2.27 log₁₀** fluorescent units when compared to a Mouse IgG1/APC negative control (Catalog #278-060) at a similar concentration. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-CD4(QS4120) antibody (Catalog #147-020).

***This Product is intended for Laboratory Research use only.**

Allophycocyanin (APC) is covered under patents: U.S. 4,520,110; European 76,695 and Canadian 1,179,942.

Binding of anti-CD4/APC to human PBL

