

PERFORMANCE DATA SHEET

1818

Monoclonal anti-human CD40/R-PE*

mAb name/Clone: EA-5

Isotype: Mouse IgG1

Immunogen: Murine L cell transfectants expressing human CD40

CATALOG#: 300-050

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: Human CD40 is a member of the tumor necrosis factor (TNF) receptor family and is present on all B cells except plasma cells. CD40 is also found on some epithelial cells, carcinomas and lymphoid dendritic cells. CD40 plays an important role in B cell activation and the interaction with its ligand CD154 (CD40 Ligand) is essential for isotype switching (1). The CD40-CD154 interaction appears to have a role in atherosclerosis and cardiovascular disorders (3,4,5). Antibody EA-5 recognizes the CD40 molecule of about 44 kd. Binding of cross linked EA-5 will partially activate B cells.

REFERENCES: 1) T.A. Foy, et al, (1996) *Annu Rev Immunol* 14: 591-617. 2) M.E. Ozaki, et al, (1997) *J Immunol* 159: 214-221. 3) F. Mach, et al, (1997) *Proc Natl Acad Sci USA* 94:1931-1936. 4) U. Schonbeck, et al, (2000) *PNAS USA* 97: 7458-7463. 5) U. Schonbeck, et al, (2001) *Circulation* 104: 2266-2268.

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 2.56.

PERFORMANCE: Five x 10⁵ human Raji cells per tube were incubated 45 minutes on ice with 80 µl of anti-CD40/R-PE at a dilution factor of 1:50 (10µg/ml). Cells were washed three times, fixed and analyzed by FACS. Cells stained positive) with a mean shift of 2.59 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-CD40 antibody (Catalog #300-020).

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

R-Phycoerythrin (R-PE) is covered under patents: U.S. 4,520,110; European 76,695 and Canadian 1,179,942.

Binding of anti-CD40/R-PE to human cell lines

