

PERFORMANCE DATA SHEET

1818

Monoclonal anti-human CD40/Biotin*

mAb name/Clone: EA-5

Isotype: Mouse IgG1

Immunogen: Murine L cell transfectants expressing human CD40

CATALOG#: 300-030

QUANTITY: 100 µg

CONCENTRATION: 1.0 mg/ml

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. Freeze/Thawing is not recommended.

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, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Antibody from (low FBS containing) tissue culture supernatant was Protein A purified to >95% mouse immunoglobulin by SDS-PAGE (<1% bovine immunoglobulin), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

PERFORMANCE: Five x 10⁵ cultured **Raji** cells were incubated 45 minutes on ice with 80 µl of anti-CD40/Biotin at 5 µg/ml. Cells were washed twice and incubated with 2° reagent Streptavidin/R-Phycoerythrin (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 2.01 log₁₀ fluorescent units when compared to a Mouse IgG1/Biotin negative control (Catalog #278-030) at a similar concentration. Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-CD40(EA-5) antibody (Catalog #300-020).

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

Binding of anti-CD40/Biotin + SA/PE to human Raji cells

