

# PERFORMANCE DATA SHEET

1851

## Monoclonal anti-human CD40/FITC\*

**mAb name/Clone:** EA-5

**Isotype:** Mouse IgG1

**Immunogen:** Murine L cell transfectants expressing human CD40

**CATALOG#:** 300-040

**QUANTITY:** 120 tests

**VOLUME IN VIAL:** 0.2ml

**WORKING DILUTION:** 1:50 (or use 1.6µl of concentrated stock per 5 x 10<sup>5</sup>-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. Freeze/Thawing is not recommended. 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, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN<sub>3</sub> (as a preservative).

**PRODUCTION:** Protein A purified antibody from tissue culture supernatant was reacted with FITC. Unconjugated FITC was separated from antibody/FITC conjugate by desalting column. The antibody/FITC conjugate is at 0.25 mg/ml with a Fluorescein/IgG molar ratio of 10:1.

**PERFORMANCE:** Five x 10<sup>5</sup> cultured **Raji** cells were washed and incubated 45 minutes on ice with 80 µl of anti-CD40/FITC at a 1:50 dilution factor (5 µg/ml). Cells were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 1.39 log<sub>10</sub> fluorescent units when compared to a Mouse IgG1/FITC negative control (Catalog #278-040). Binding was blocked when cells were pre incubated 10 minutes with 20 µl of 0.5 mg/ml anti-CD40 antibody (Catalog #300-020).

\* **Research Use Only. Not for use in Diagnostic procedures.**

