

**PERFORMANCE DATA SHEET**

3043

**Human CD40 muIg Fusion Protein\***

For maximal recovery of contents  
please quick spin vial before opening

**CATALOG#: 504-020**

**QUANTITY: 25 µg**

**CONCENTRATION: 0.5 mg/ml**

**Molecular Structure:** A soluble fusion protein consisting of the extracellular (173aa) domain of human CD40 fused to murine IgG2a Fc (233aa).

**Transfectant Cell Line:** CHO

**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).

CD40-muIg fusion protein binds to cell surface CD154 in Flow cytometry.

**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, 0.5 mg/ml Gentamicin Sulfate (as a preservative).

**PRODUCTION:** Recombinant protein from serum-free tissue culture supernatant of transfectants was purified using affinity and size exclusion chromatography.

**PERFORMANCE** Ficoll prepared human PBMC were stimulated 6 hours in in culture with PMA and Ionomycin. Five x 10<sup>5</sup> cells per tube were incubated 45 minutes on ice with 80 µl of CD40-muIg at a concentration of 10 µg/ml. Cells were washed twice and incubated with 50 µl of 2<sup>o</sup> reagent Goat anti-Mouse IgG/FITC (Catalog #232-011), after which they were washed three times, fixed and analyzed by FACS. A 24% sub population of the cells stained positive with a mean shift of 0.77 log<sub>10</sub> fluorescent units when compared to a muIg control protein (Catalog #581-010).

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

**Binding of Recombinant CD40-muIg +GAM/FITC to stimulated human PBL**

