## PERFORMANCE DATA SHEET

1750

## 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 artherosclerosis 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<sup>o</sup>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:\_\_\_\_\_

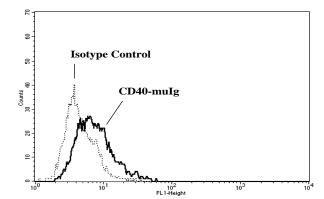
**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 0.5 mg/ml Gentamicin Sulfate (as a preservative).

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

**PERFORMANCE:** Jurkat-4G (a CD154 positive subclone of Jurkat) cells were stimulated 6 hours in the presence of PMA and Ionomycin (to increase CD154 expression). Five x  $10^5$  cells per tube were incubated 45 minutes on ice with 80  $\mu$ l of CD40-muIg at a concentration of 10  $\mu$ g/ml. Cells were washed twice and incubated

with 50  $\mu$ l of 2° reagent Goat anti-Mouse IgG/FITC (Catalog #232-011), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of **0.28** log<sub>10</sub> fluorescent units when compared to a Mouse IgG2a negative control (Catalog #281-010) at a similar concentration.

Binding of CD40-muIg to Stimulated human Jurkat-4G cells



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