Human CD40 muIg Fusion Protein*

For maximal recovery of contents please quick spin vial before opening

CATALOG#: 504-820 (Preservative Free)

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^oC*. **Open under aseptic conditions.** Freeze/Thawing is not recommended.

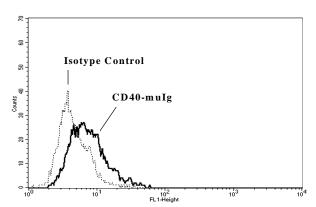
PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl. Product was 0.1 μ m filtered and vialed under aseptic conditions.

PRODUCTION: Product was Protein A purified from (low FBS containing) tissue culture supernatant of CHO transfectants. Purity was >95% by SDS-PAGE with less than 1% Bovine Immunoglobulin. Product was 0.2μ sterile-filtered and vialed under aseptic conditions..

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 μ l of CD40-muIg at a concentration of 5 μ g/ml. Cells were washed twice and incubated with 50 μ l of 2^o 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 $0.22 \log_{10}$ 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.