

Human CD40 muIg Fusion Protein*

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 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. *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 µm filtered and vialled 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 vialled under aseptic conditions.

PERFORMANCE: Ficoll prepared human PBMC were stimulated 6 hours in in culture with PMA and Ionomycin. Five x 10⁵ 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^o 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 log₁₀ 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

