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Human CD40 muIg/Biotin*

CATALOG#: 504-030 QUANTITY: 25 μg

CONCENTRATION: 0.5 mg/ml

Molecular Structure: A soluble fusion protein consisting of the extracellular (193aa) 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*. Freeze/Thawing is not recommended.

PRODUCT STABILITY: Product should retain activity for at least 6 months after shipping date when stored as recommended. Ship Date:_____

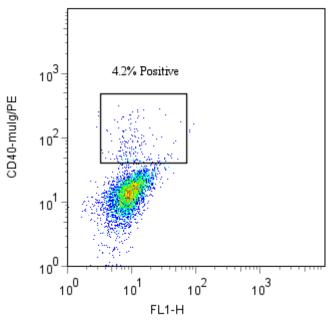
BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Fusion protein from (low FBS containing) tissue culture supernatant of transfectants was purified using affinity and size exclusion chromatography), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate by diafiltration.

PERFORMANCE: Jurkat-4G cells were stimulated 6 hours in the presence of PMA and Ionomycin (to increase CD154 expression). Five x 10^5 cells per tube were washed and incubated 45 minutes on ice with 80 µl of CD40-muIg/Biotin at a concentration of 5 µg/ml. Cells were washed twice and incubated with 2° reagent Streptavidin/R-PE (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 0.78 log₁₀ fluorescent units when compared to a buffer control at a similar concentration. Binding was blocked when cells were pre blocked 10 minutes with 20 µl of anti-CD154 antibody (Catalog # 353-020) at a concentration of 0.5 mg/ml.

*This Product is intended for Laboratory Research use only.

Binding of CD40-muIg/Biotin +SA/PE to human Jurkat-4G cells



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