

PERFORMANCE DATA SHEET

2805

Human CD40 muIg/APC Fusion Protein*

CATALOG#: 504-060

QUANTITY: 50 tests

VOLUME IN VIAL: 0.2 ml

WORKING DILUTION: 1:20 (or use 4 ul of concentrated stock per 5×10^5 -cell test)

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). CD40 muIg fusion protein is recognized by anti-human CD40 antibody (catalog #300-020) and binds to human CD154. This binding can be blocked by anti-CD154 antibody (catalog #353-020).

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.

STORAGE CONDITIONS: Store at 2 - 5°C. Do not freeze! Protect from light.

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, 500 mM Potassium Chloride, 150mM NaCl, 15% Glycerol, 0.2% BSA, 0.04% NaN_3 (as a preservative).

PRODUCTION: Protein A purified recombinant protein from tissue culture supernatant was conjugated to Allophycocyanin through a sulfo-ester linkage. Unconjugated protein was removed using size exclusion chromatography. Protein conjugate is at a concentration of **0.2 mg/ml** with an A_{650}/A_{280} ratio of 2.28.

PERFORMANCE: Human Jurkat-4G cells were stimulated 6 hours in culture in the presence of 10 ng/ml PMA and $1 \mu\text{M}$ Ionomycin to up regulate CD154 expression. Five $\times 10^5$ cells per tube were washed and incubated 45 minutes on ice with 80 ul of a **1:20** dilution (10 $\mu\text{g/ml}$) of CD40-muIg/APC. They were then washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of **0.33** \log_{10} fluorescent units when compared to a Mouse IgG2a/APC negative control (Catalog #281-060). Binding was blocked when cells were pre incubated 10 minutes with 20 μl of 0.5 mg/ml anti-CD154 antibody (Catalog #353-020).

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

Binding of Recombinant CD40-muIg/APC to stimulated human Jurkat cells

