PERFORMANCE DATA SHEET
1818

Human CD137(4-1BB) huIg/Biotin *Fusion Protein**

For maximal recovery of contents please quick spin vial before opening

CATALOG#: 502-030
QUANTITY: 25 µg **CONCENTRATION: 0.5 mg/ml**

Molecular Structure: A soluble 55 kd fusion protein consisting of the extracellular (186aa) domain of human CD137 (4-1BB) fused to human IgG1 Fc (4).
Transfectant Cell Line: CHO

INFORMATION: Human CD137 (4-1BB) is expressed on activated T cells within 24-48 hours of activation (3). CD137 is a type I membrane protein and a member of the tumor necrosis factor receptor superfamily (1,2). CD137 appears to be important for T cell proliferation and survival (4). The interaction of CD137 (4-1BB) and CD137L can supply a costimulatory signal to T cells through CD137. This costimulus seems to be more effective for CD8+ effector T cells than for CD4+ helper T cells (6). The interaction can also induce monocyte activation through CD137L (5). CD137 huIg fusion binds to cell surface CD137L on Raji cells in flow cytometry.
REFERENCES: 1) M.R. Alderson, et al, (1994) *Eur J Immunol* 24: 2219-2227. **2)** H.J. Gruss, and S.K. Dower, (1995) *Blood* 85: 3378-3404. **3)** B.A. Garni-Wagner, et al, (1996) *Cellular Immunol* 169: 91-98. **4)** H. Schwarz, et al, (1996) *Blood* 87: 2839-2845. **5)** J. Langstein, et al, (1998) *J Immunol* 160: 2488-2494. **6)** V.Y. Taraban, et al, (2002) *Eur J. Immunol*. 32: 3617-3627.

STORAGE CONDITIONS: ***Store at 2 - 5°C***. Freeze/Thawing is not recommended.

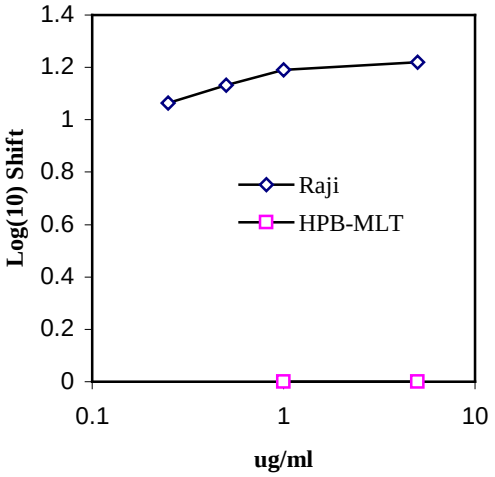
PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.04% NaN_3 (as a preservative).

PRODUCTION: Human CD137 Ig fusion protein 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. Purified fusion protein was reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

PERFORMANCE: Five x 10^5 cultured human **Raji** cells were washed and pre incubated 5 minutes with 20 µl of 250 µg/ml human IgG (to block non specific binding) after which they were incubated 45 minutes on ice with 80 µl of CD137 huIg/Biotin at **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 **1.2** $\log_{10}$ fluorescent units when compared to a buffer + SA/PE control. Binding was blocked when reagent was pre incubated with an excess of recombinant CD137L-muCD8(cat#503-020).

Binding of CD137-huIg/Biotin to human cell types



This Product is intended for Laboratory Research use only.

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