

PERFORMANCE DATA SHEET

3201

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



**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. Gami-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.

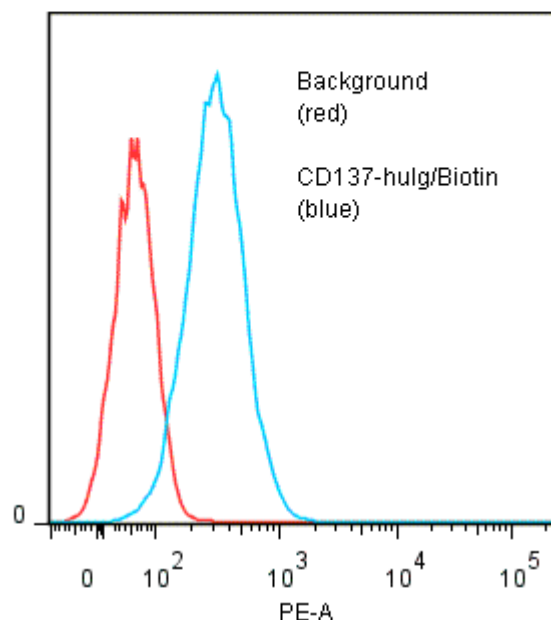
**PRODUCT STABILITY:** Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: \_\_\_\_\_

**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.04% NaN<sub>3</sub> (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<sup>5</sup> cultured human **Raji** cells were washed and preincubated 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 10 µg/ml. Cells were washed twice and incubated with 2<sup>o</sup> 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 0.71 log<sub>10</sub> fluorescent units when compared to a SA/PE background.

**Binding of CD137-hulg/Biotin + SA/PE to human Raji cells**



\*Research use only. Not for use in Diagnostic procedures.