

## PERFORMANCE DATA SHEET

1820

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# Human CD275(GL50, ICOS L)trn-muIg Fusion Protein\*

**CATALOG#:** 575-820 (Preservative-free)

**QUANTITY:** 25 ug

**CONCENTRATION:** 0.5 mg/ml

**Molecular Structure:** A soluble molecule consisting of the mature extracellular (213 aa) domain of human CD275 (GL50,ICOS L) fused to the murine IgG2a Fc (233 aa). (449 aa total). The molecule is dimeric with a predicted monomeric non glycosylated molecular weight of 50.3 kd.

**Transfectant Cell Line:** CHO

**INFORMATION :** The inducible costimulator (ICOS, T cell activation molecule H4) is similar to human CD28 (24% homology), and plays an analogous role in the T cell activation process. Unlike CD28, ICOS is only expressed on activated T cells. Secondary signaling through CD28 or ICOS results in discrete cytokine secretion profiles by the activated T cells(1). Engagement of CD152 (CTLA-4) anergizes cells costimulated with either CD28 and ICOS(2). Signaling through ICOS is particularly important in progression of TH2 immune response (5). The receptor for human ICOS is GL50(ICOS L), a member of the B7 family sharing ~20% homology with CD80 (B7-1) and CD86 (B7-2)(3). Two RNA splice variants exist for this molecule, differing only in the cytoplasmic domain(4). Blockade of the ICOS-GL50 interaction in mice improves allograft survival(6) and reduces EAE(7).

Recombinant human CD275trn-muIg binds to recombinant and native CD278(ICOS) in EIA and Flow cytometry. Its binding is blocked by pre incubation with soluble recombinant CD278-muIg.

**REFERENCES:** 1) Beier, K.C., R.A. Kroczek, et al. 2000, *Eur J Immunol.* 30(12):3707-3717. 2) Riley, J.L., C.H. June, et al. 2001, *J. Immunol.* 166: 4943-4948. 3) Ling, V., M. Collins, et al. 2000, *J. Immunol.* 164: 1653-1657. 4) Ling, V., M. Collins, et al. 2001, *J. Immunol.* 166: 7300-7308. 5) K.C. Beier, et al, (2000) *Eur J Immunol* 30: 3707-3717. 6) E. Ozkaynak, et al, (2001) *Nat Immunol* 2: 591-596. 7) J.B. Rottman, et al, (2001) *Nat Immunol* 2: 605-611.

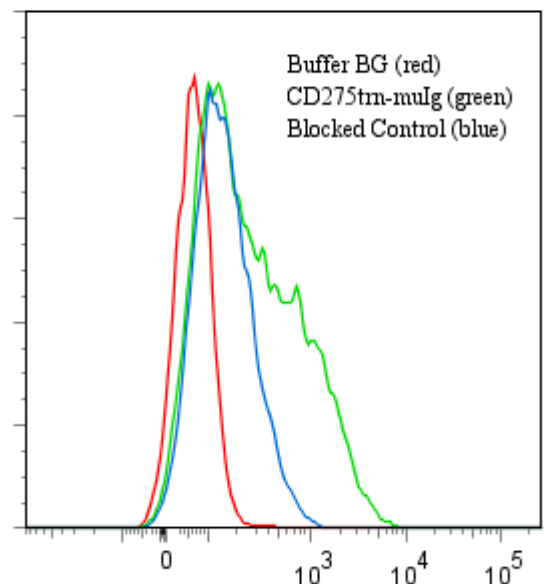
**STORAGE CONDITIONS:** Store at 2 - 5°C. Open under aseptic conditions. Freeze/Thawing is not recommended.

**PRODUCT STABILITY:** Product should retain activity for at least 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. Product was 0.1 µm filtered and viald under aseptic conditions.

**PERFORMANCE:** Five x 10<sup>5</sup> human **HPB-MLT** cells were washed and incubated 45 minutes on ice with 80 µl of CD275trn-muIg at 5 µg/ml. Cells were washed twice and incubated with 2<sup>o</sup> reagent Goat anti-Mouse IgG/FITC(Catalog #232-011), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 0.89 log<sub>10</sub> fluorescent units when compared to a buffer control at a similar concentration. Binding was blocked when reagent was pre incubated with a 5-fold excess of recombinant CD278(ICOS)-muIg (cat #517-020).

**Binding of CD275(ICOSL)trn-muIg + GAM/FITC to human HPB-MLT cells**



\*This Product is intended for Laboratory Research use only.

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