PERFORMANCE DATA SHEET
2329

For maximal recovery of contents please quick spin vial before opening

Human CD257(BAFF)$_{trn}$-muCD8/Biotin*

CATALOG#: 525-030
QUANTITY: 25 µg **CONCENTRATION: 0.46 mg/ml**

Molecular Structure: A soluble molecule consisting of 159 (c-term) aminoacids of the extracellular domain of human BAFF fused to the extracellular domain (167aa) of murine CD8 alpha, with a predicted monomeric weight of 38.5 kd. The extracellular portion of BAFF was truncated to eliminate a potential protease cleavage site.
Transfectant Cell Line: CHO

INFORMATION: The human B cell activating factor (BAFF,TALL-1, Blys, THANK) and APRIL(a proliferation inducing ligand) are both type II molecules belonging to the TNF superfamily. They are expressed by non-B cells, and are down regulated by mitogenic stimulation(2). BAFF and APRIL bind to at least two receptors: TACI (transmembrane activator and CAML-interactor) and BCMA (B cell maturation antigen), both of which are restricted to B cells(3,4). Ligation of these receptors with recombinant BAFF dramatically increases IgM production by peripheral blood B cells(1). Recently a third receptor for BAFF (BAFF-R) was described(5). BAFF and BAFFR knockout mice have a reduced numbers of mature B cells in the periphery, however TACI and BCMA knockouts do not share this phenotype, suggesting that BAFF-R may the primary receptor for BAFF in mice(8,9,10). Cell surface BAFF can be proteolytically cleaved to form a soluble trimeric molecule(2). Levels of soluble BAFF correspond with levels of autoantibodies in Sjogren's Syndrome(11). Recombinant BAFF(trn)-muCD8 binds to human cell surface TACI/BCMA/BAFFR.

References: 1) Schneider P., J. Tschopp, et al. *J. Exp. Med*. 1999, 189(11):1747-1756. **2)** Shu, H.B., H. Johnson, W.H. Hui. *J Leukoc Biol* 1999, 65:680-683. **3)** Marsters, S.A., A. Ashkenazi, et al. 2000, *Curr Biol* 10:785-788. **4)** Xia, X., H. Hsu, et al. 2000, *J Exp Med*, 192(1): 137-143. **5)** Thompson J.S., C. Ambrose, et al. Science 2001, 293: 2108-2111. **6)** Roschke, V, T.S. Migone, et al. *J Immunol*. 2002, 169: 4314-4321. **7)** MacLennan, C.M., C.G. Vinuesa, 2002, *Immunity* 17:235-238. **8)** B. Schiemann, et al, (2001) *Science* 293: 2111-2114. **9)** S.M. Harless,et al, (2001) *Curr Biol* 11: 1988-1989. **10)** *Mol Cell Biol* (2001) 21: 4067-4074. **11)** X. Mariette, et al, (2003) *Ann Rhem Dis* 62: 168-171.

STORAGE CONDITIONS: ***Store at 2 - 5^{o}C***. Freeze/Thawing is not recommended.

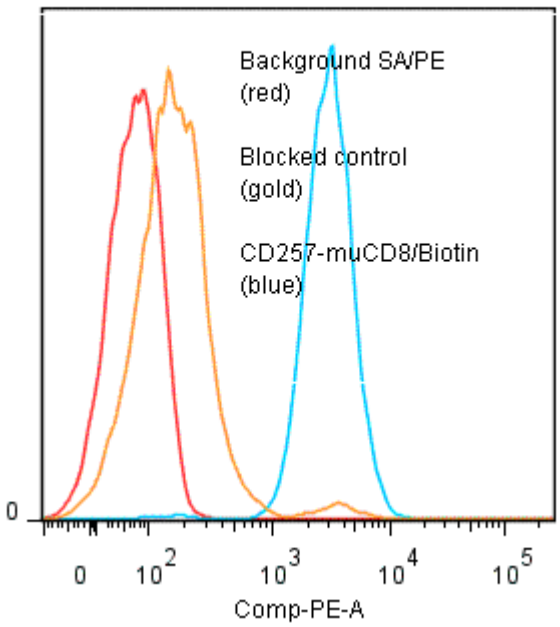
PRODUCT STABILITY: Product should retain activity for at least 6 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN_3 (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 using a desalting column.

PERFORMANCE: Five x 10^5 cultured human **Raji** cells per tube were washed and incubated 45 minutes on ice with 80 µl of BAFF(trn)-muCD8/Biotin at a concentration of **5 µg/ml**. Cells were washed twice and incubated with 2^{o} 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 **1.66** $\log_{10}$ fluorescent units when compared to a buffer control. Binding was blocked when reagent was pre incubated with 50 µg/ml of recombinant CD268(BAFFR)-muIg (Catalog #524-020).

Binding of CD257(BAFF)-muCD8/Biotin + SA/PE to human Raji cells



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