PERFORMANCE DATA SHEET
2724

For maximal recovery of contents please quick spin vial before opening

Human CD269(BCMA)-muIg Fusion Protein*

CATALOG#: 519-020
QUANTITY: 25 µg **CONCENTRATION: 0.5 mg/ml**

Molecular Structure: A soluble molecule consisting of the extracellular (54aa) domain of human BCMA fused to the murine IgG2a Fc (232 aa). Predicted monomeric weight: 33 kd.
Transfectant Cell Line: CHO

INFORMATION: The human B cell activating factor (BAFF) 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). 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 BAFFR 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 human BCMA-muIg binds to recombinant BAFF-muCD8 and can inhibit binding of this molecule to receptors on Raji cells.
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°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:_____

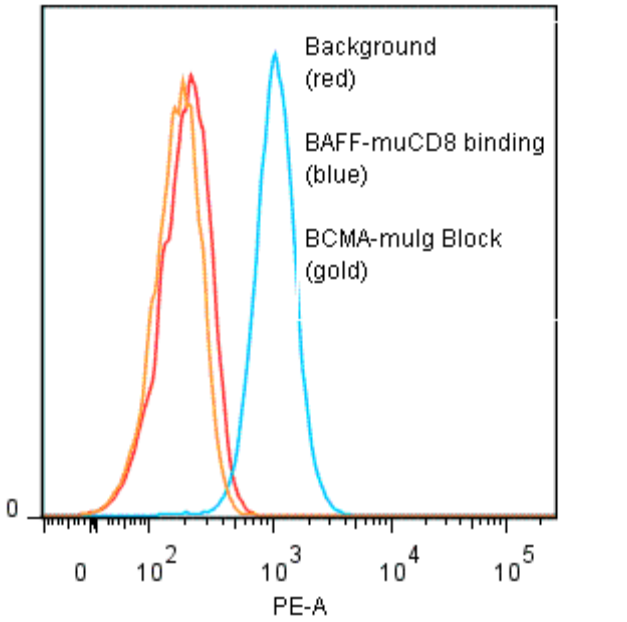
BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 0.5mg/ml Gentamicin Sulfate (as a preservative).

PRODUCTION: Human BCMA-muIg fusion protein was purified from (low FBS containing) tissue culture supernatant of CHO transfectants using Protein A and size exclusion chromatography. Product was 0.2µ sterile filtered and vialed under aseptic conditions.

PERFORMANCE: Five x 10^5 human **Raji** cells were washed and incubated 45 minutes on ice with 80 µl of **BAFF-muCD8** (cat# 525-020) at 5 µg/ml. Cells were washed twice and incubated with 2° anti-muCD8α/PE Catalog #260-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of **0.71** $\log_{10}$ fluorescent units when compared to a buffer control. **This binding was 100% inhibited when recombinant BAFF was pre incubated 20 minutes with 10 µg/ml BCMA-muIg**.

Research use only. Not for use in Diagnostic procedures.

BCMA-muIg blocks binding of recombinant BAFF-muCD8 binding with anti-muCD8/PE detection to human Raji cells



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