**PERFORMANCE DATA SHEET**
**1819**

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# Human CD268(BAFFR)-muIg/Biotin *Fusion Protein**

**CATALOG#: 524-030**
**QUANTITY: 25 µg** **CONCENTRATION: 0.5 mg/ml**

***Molecular Structure:*** A soluble molecule consisting of the extracellular (60aa) domain of human BAFFR fused to the murine IgG2a Fc (232 aa). Predicted monomeric weight: 33.5 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) has been 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 human CD268 (BAFFR)-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$^{o}$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, 0.2% 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:** CD268(BAFFR)-muIg/Biotin was reactive as a detection reagent at **20 ng/ml** in an Enzyme Immuno Assay utilizing BAFF-muCD8 (Cat# 525-820) coated plate for capture and Streptavidin/HRP and TMB/$H_2O_2$ substrate chromagen for detection.

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

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