

PERFORMANCE DATA SHEET
2029

Monoclonal anti-human CD257 (BAFF, Tall-1)/Biotin*

mAb name/Clone: ANC2H3

Isotype: Mouse IgG1κ

Immunogen: Recombinant soluble human CD257

CATALOG#: 266-030

QUANTITY: 100 µg

CONCENTRATION: 1.0 mg/ml

INFORMATION: Human CD257 (B cell activating factor, BAFF, TALL-1, Blys, THANK) and CD256 (APRIL, a proliferation inducing ligand) are both type II molecules belonging to the TNF superfamily (TNFSFL #13b and 13 respectively). They are expressed by non-B cells, and are down regulated by mitogenic stimulation(2). BAFF and APRIL bind to at least two receptors: CD267 (TACI, transmembrane activator and CAML-interactor) and CD269 (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 CD268 (BAFFR) is specific for BAFF has also 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 be 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). Clone ANC2H3 blocks binding of recombinant human CD257(BAFF) to receptors on Raji cells in Flow Cytometry.

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 Rheum Dis* 62: 168-171.

STORAGE CONDITIONS: Store at 2 - 5°C. Freeze/Thawing is not recommended.

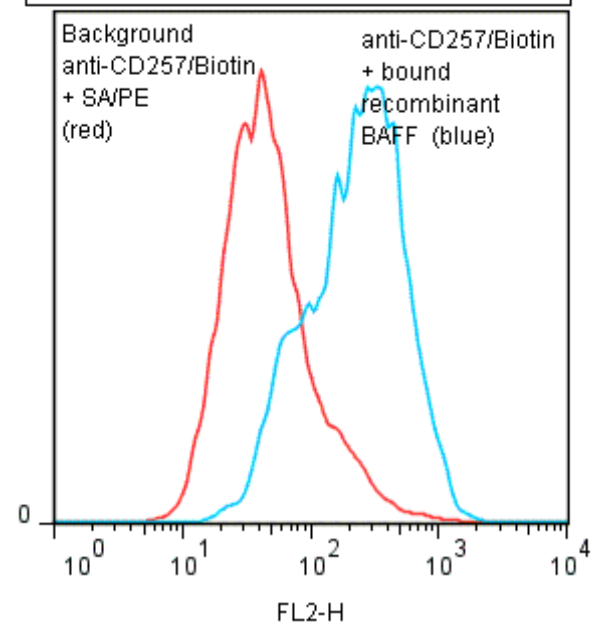
PRODUCT STABILITY: Product should retain activity for at least 12 months after shipping date when stored as recommended. Ship Date: _____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN₃ (as a preservative).

PRODUCTION: Antibody from (low FBS containing) tissue culture supernatant was Protein A purified to >95% mouse immunoglobulin by SDS-PAGE (<1% bovine immunoglobulin), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate using a desalting column.

PERFORMANCE: Anti-CD257/Biotin was tested for its ability to detect multimeric recombinant soluble CD257 bound to receptors on Raji cells in Flow cytometry. Five x 10⁵ human **Raji** cells were washed and incubated 45 minutes on ice with 80 µl of recombinant **CD257(BAFF)trn-muCD8 (cat# 525-020)** at 5 µg/ml. Binding of this reagent was confirmed independently using anti-mouse CD8α/PE (cat# 260-050). Cells were washed twice and incubated with **anti-CD257(BAFF)/Biotin** at 5 µg/ml after which they were washed twice 2° and incubated with Streptavidin/R-Phycoerythrin (Catalog #253-050). Cells were then washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 0.7 log₁₀ fluorescent units when compared to Raji cells with no recombinant CD257 in the primary incubation.

Binding of anti-CD257(BAFF)/Biotin to recombinant BAFF bound to Raji cells + SA/PE



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