

DESCRIPTION

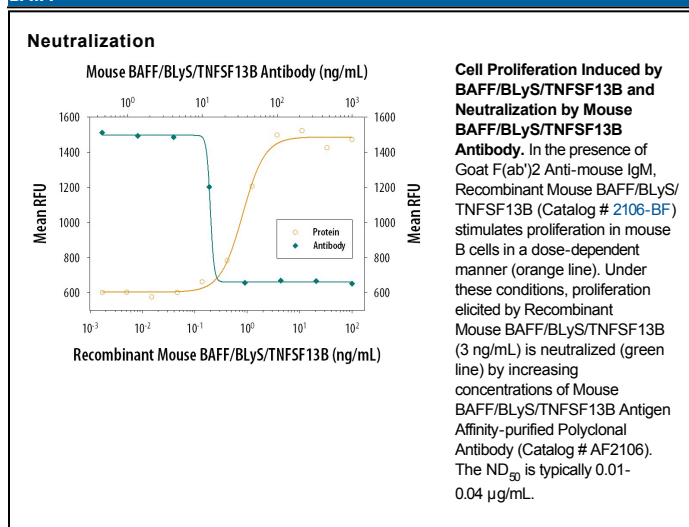
Species Reactivity	Mouse
Specificity	Detects mouse BAFF/BLyS/TNFSF13B in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human (rh) BAFF, 10% cross-reactivity with recombinant mouse (rm) LIGHT, rhEDA-A2, and rhTRANCE and less than 1% cross-reactivity with rmTWEAK, rhAPRIL, rmFas Ligand, rhGITR Ligand, rmOX40 Ligand, rmTNF- α , rmTRAIL, and rm4-1BB Ligand is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse BAFF/BLyS/TNFSF13B Ala127-Leu309 Accession # Q9WU72
Endotoxin Level	<0.10 EU per 1 μ g of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 μ g/mL	Recombinant Mouse BAFF/BLyS/TNFSF13B (Catalog # 2106-BF)
Neutralization		Measured by its ability to neutralize BAFF/BLyS/TNFSF13B-induced proliferation in mouse B cells. The Neutralization Dose (ND ₅₀) is typically 0.01-0.04 μ g/mL in the presence of 3 ng/mL Recombinant Mouse BAFF/BLyS/TNFSF13B and 10 μ g/mL Goat F(ab') ₂ Anti-mouse IgM.

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

BAFF (also known as TALL-1, BLyS, THANK) is a type II transmembrane glycoprotein belonging to the TNF superfamily and has been designated as TNF superfamily member 13B (TNFSF13B). Mouse BAFF is a 309 aa protein consisting of a 248 amino acid (aa) extracellular domain, a 21 aa transmembrane region and a 45 aa cytoplasmic tail (1, 2). BAFF has the typical structural characteristics of the TNF superfamily ligands. It is a homotrimeric protein having the structurally conserved motif known as TNF homology domain (3, 4). A higher ordered structure composed of a cluster of trimeric units resembling the structure of a viral capsid has also been reported (4). Mouse BAFF may be shed from the cell surface by proteolytic cleavage between R126 and Ala 127 to yield a soluble form of the protein detectable in serum (1, 5). Within the TNF superfamily BAFF shares the highest homology (48%) with APRIL (1). BAFF shares with APRIL the ability to bind to BCMA and TACI and also binds specifically to BAFF receptor (BAFF R, also known as BR3 or TNFSFR13C), which is the principal BAFF receptor (6-8). All three receptors are type III transmembrane proteins that are expressed in B cells. BAFF and APRIL can form active heteromers that bind TACI (9). BAFF is expressed in peripheral blood mononuclear cells, in spleen and lymph nodes. Its expression in resting monocytes is upregulated by IFN- α , IFN- β , LPS and IL-10. BAFF provides critical survival signals to a subset of B cells with intermediate maturation status (T2 B cells) during the immune response (10). BAFF also plays an important role in the development of lymphoid tissue and enhances the survival of activated memory B cells (7, 11). Human and mouse BAFF share 86% aa sequence identity (1).

References:

1. Schneider, P. *et al.* (1999) *J. Exp. Med.* **189**:1747.
2. Mukhopadhyay, A. *et al.* (1999) *J. Biol. Chem.* **274**:15978.
3. Karpusas, M. *et al.* (2002) *J. Mol. Biol.* **315**:1145.
4. Liu, Y. *et al.* (2002) *Cell* **108**:383.
5. Cheema, G.S. *et al.* (2001) *Arthr. Rheum.* **44**:1313.
6. Marsters, S.A. *et al.* (2000) *Curr. Biol.* **10**:785.
7. Thompson, J.S. *et al.* (2001) *Science* **293**:2108.
8. Ng, L. G. *et al.* (2004) *J. Immunol.* **173**:807.
9. Roschke, V. *et al.* (2002) *J. Immunol.* **169**:4314.
10. Batten, M. *et al.* (2000) *J. Exp. Med.* **192**:1453.
11. Avery, D.T. *et al.* (2003) *J. Clin. Invest.* **112**:286.