

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse BAFF in direct ELISAs and Western blots. In Western blots, this antibody does not cross-react with recombinant mouse (rm) 4-1BB Ligand, rmEDA, rmFas Ligand, rmOX40 Ligand, rmTNF-α, rmTRANCE, rmTWEAK, recombinant human (rh) APRIL, rhBAFF, rhEDA-A2, rhGITR Ligand, rhLIGHT, rhLymphotoxin α1/β2, rhLymphotoxin α2/β1, rhTNF-α, rhTRAIL, rhVEGI, recombinant canine, cotton rat, equine, feline, porcine, or rat TNF-α.
Source	Monoclonal Rat IgG _{2A} Clone # 121808
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse BAFF Ala127-Leu309 Accession # Q9WU72
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	Mouse splenocytes fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005)

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Protect from light. Do not freeze.**

- 12 months from date of receipt, 2 to 8 °C as supplied.

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 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.

Mouse BAFF/BLyS/TNFSF13B Alexa Fluor® 647-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 121808

Catalog Number: FAB1357R
100 µg

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.