Human BAFF/BLyS/TNFSF13B PE-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 137314

Catalog Number: IC1241P

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human BAFF/BLyS/TNFSF13B in direct ELISAs and Western blots. In Western blots, approximately 5% cross-reactivity with recombinant human (rh) TL1A/TNSF15 is observed and no cross-reactivity with rhAPRIL, rhTNF-α, rhFas Ligand, rhGITR Ligand, rhLIGHT, rhTRAIL, rhTRANCE, or rhTWEAK is observed.
Source	Monoclonal Mouse IgG_1 Clone # 137314
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human BAFF/BLyS/TNFSF13B Ala81-Leu285 Accession # Q9Y275
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied 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.

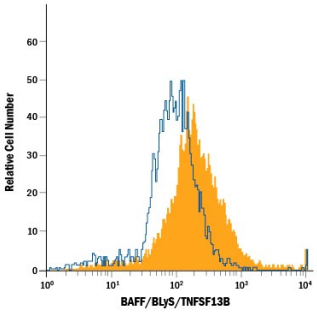
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of BAFF/BLyS/TNFSF13B in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) treated with PMA and Calcium Ionomycin (filled histogram) or resting (open histogram), were stained with Mouse Anti-Human BAFF/BLyS/TNFSF13B PE-conjugated Monoclonal Antibody (Catalog # IC1241P). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules.

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.

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BACKGROUND

BAFF, also known as TALL-1, BLyS, and THANK, is a type II transmembrane glycoprotein belonging to the TNF superfamily and has been designated as TNF superfamily member 13B (TNFSF13B). Human BAFF is a 285 amino acid (aa) protein consisting of a 218 aa extracellular domain, a 21 aa transmembrane region and a 46 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). Human BAFF may be shed from the cell surface by proteolytic cleavage between Arg133 and Ala134 to yield a soluble form of the protein that is 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 to TACI (9). BAFF is expressed in peripheral blood mononuclear cells, spleen and lymph nodes. Its expression in resting monocytes is up-regulated 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:

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