Mouse BAFFR/TNFRSF13C Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1357R
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse BAFF R in ELISAs and Western blots. In sandwich immunoassays, less than 0.2% cross-reactivity with recombinant human BAFF R is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse BAFF R Ser10-Ala71 Accession # Q9D8D0
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.

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

B-cell activating factor (BAFF), also known as BlyS, TALL-1, TNAK, and zTNF4, is a TNF ligand superfamily member and has been designated TNFSF13B. It is produced by macrophages, dendritic cells, and T lymphocytes. BAFF promotes the survival of B cells and is essential for B cell maturation (1 - 4). BAFF binds to three TNF receptor superfamily members: B-cell maturation antigen (BCMA/TNFRSF17), transmembrane activator and calcium-modulator and cyclophilin ligand interactor (TACI/TNFRSF13B) and BAFF receptor (BAFF R/BR3/TNFRSF 13C). These receptors are type III transmembrane proteins that lack a signal peptide. Whereas TACI and BCMA bind BAFF and another TNF superfamily ligand, APRIL(a proliferation-inducing ligand), BAFF-R selectively binds BAFF. Mouse BAFF-R cDNA encodes a 175 amino acid residue (aa) transmembrane protein with a 71 aa extracellular domain, a 21 aa transmembrane domain, and a 83 aa cytoplasmic region. A second isoform of BAFF R that has a 72 aa cytoplamic region can also be produced by alternative splicing. The BAFF R extracellular domain lacks the TNF receptor canonical cysteine-rich domain (CRD) and contains only a partial CRD with four cysteine residues. Human and mouse BAFF R share 56% aa sequence identity. BAFF R is highly expressed in spleen, lymph node and resting B cells. It is also expressed at lower levels in activated B cells, in resting $CD4^+$ T cells, in thymus and peripheral blood leukocytes. BAFF knockout mice lack mature B cells and has profound defects in antibody mediated immune responses. Similarly, A/WySnJ mice that are defective in BAFF R intracellular signaling also lack mature B cells, suggesting that BAFF R is the critical receptor for BAFF during B lymphopoiesis. In contrast, BCMA- or TACI-deficient mice have no major defect in B-cell development. While the function of BCMA is not defined, TACI has been shown to control B-cell homeostasis and T-cell-independent immune responses.

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