Datasheet for ABIN921083

BAFF ELISA Kit

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Overview

Quantity:	96 tests
Target:	BAFF (TNFSF13B)
Binding Specificity:	AA 134-285
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human BAFF
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: A134-L285
Specificity:	Expression system for standard: NSO Immunogen sequence: A134-L285
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<2pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	BAFF (TNFSF13B)
Alternative Name:	TNFSF13B (TNFSF13B Products)
Background:	Protein Function: Cytokine that binds to TNFRSF13B/TACI and TNFRSF17/BCMA. TNFSF13/APRIL binds to the same 2 receptors. Together, they form a 2 ligands -2 receptors pathway involved in the stimulation of B- and T-cell function and the regulation of humoral immunity. A third B-cell specific BAFF-receptor (BAFFR/BR3) promotes the survival of mature B-cells and the B-cell response. . Background: BAFF was regularly detected by enzyme-linked immunosorbent assay in brain tissue lysates and in normal spinal fluid, and in astrocytes by double fluorescence microscopy. BAFF was localized in astrocytes close to BAFF-R-expressing immune cells. BAFF receptors were strongly expressed in situ in primary central nervous system(CNS) lymphomas.1 The TNF superfamily member B cell-activating factor(BAFF) plays an important role in humoral immunity and in autoimmune diseases, including RA.Local BAFF gene targeting inhibited proinflammatory cytokine expression, suppressed generation of plasma cells and Th17 cells, and markedly ameliorated joint pathology.2 The B cell activating factor BAFF(BlyS/TALL-1/zTNF4) is a tumor necrosis factor(TNF)-related ligand that promotes B cell survival and binds to three receptors(BCMA, TACI, and the recently described BAFF-R).3 Human BAFF was mapped to chromosome 13q32-34.4 The standard used in this kit is recombinant soluble human BAFF(A134-L295) with the molecular mass of 19.6KDa. Synonyms: Tumor necrosis factor ligand superfamily member 13B,B lymphocyte stimulator,BLyS,B-cell-activating factor,BAFF,Dendritic cell-derived TNF-like molecule,TNF- and APOL-related leukocyte expressed ligand 1,TALL-1,CD257,Tumor necrosis factor ligand superfamily member 13b, membrane form,Tumor necrosis factor ligand superfamily member 13b, soluble form,TNFSF13B,BAFF, BLYS, TALL1, TNFSF20, ZTNF4,UNQ401/PRO738, Full Gene Name: Tumor necrosis factor ligand superfamily member 13B Cellular Localisation: Cell membrane, Single-pass type II membrane protein.
Gene ID:	10673

Target Details

UniProt:	Q9Y275
Pathways:	NF-kappaB Signaling, Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the tumor necrosis factor family. Tissue Specificity: Abundantly expressed in peripheral blood Leukocytes and is specifically expressed in monocytes and macrophages. Also found in the spleen, lymph node, bone marrow, T- cells and dendritic cells. A lower expression seen in placenta, heart, lung, fetal liver, thymus, and pancreas. Isoform 2 is expressed in many myeloid cell lines. .
Plate:	Pre-coated
Protocol:	human BAFF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for BAFF has been precoated onto 96-well plates. Standards(NSO, A134-L285) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for BAFF is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human BAFF amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human BAFF standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human BAFF standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 400, Standard deviation: 27.2, CV(%): 6.8 • Sample 2: n=16, Mean(pg/ml): 950, Standard deviation: 71.25, CV(%): 7.5 • Sample 3: n=16, Mean(pg/ml): 2108, Standard deviation: 90.6, CV(%): 4.3, • Sample 1: n=24, Mean(pg/ml): 425, Standard deviation: 39.1, CV(%): 9.2 • Sample 2: n=24, Mean(pg/ml): 1093, Standard deviation: 108.2, CV(%): 9.9 • Sample 3: n=24, Mean(pg/ml): 2357, Standard deviation: 228.6, CV(%): 9.7

Application Details

Restrictions:	For Research Use only

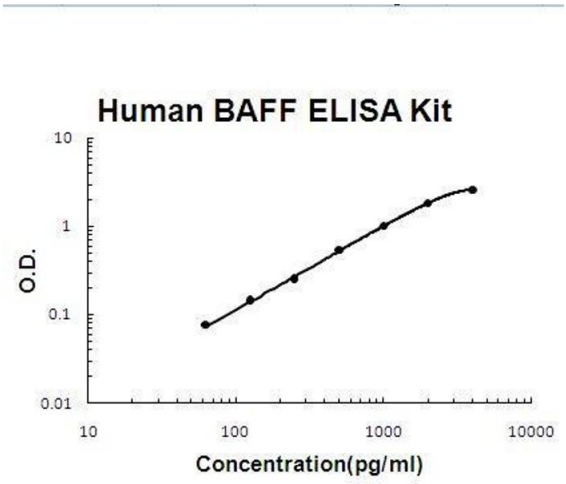
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in:	Mateeva, Gangapuram, Mazzio, Eyunni, Soliman, Redda: "Biological evaluation of synthetic chalcone and flavone derivatives as anti-inflammatory agents." in: **Medicinal chemistry research : an international journal for rapid communications on design and mechanisms of action of biologically active agents**, Vol. 24, Issue 4, pp. 1672-1680, (2015) (PubMed).

Images



ELISA

Image 1. Human BAFF PicoKine ELISA Kit standard curve