abcam

Product datasheet

Human BAFF ELISA Kit (TNFSF13B) ab188391

SimpleStep ELISA

3 References 5 Images

Overview

Product name Human BAFF ELISA Kit (TNFSF13B)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%	
Overall	8			8.3%	

Inter-assay

Sample	n	Mean	SD	CV%	
Overall	3			8.8%	

Sample type Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 12.7 pg/ml

Range 0.08 ng/ml - 5 ng/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	111	105% - 115%
Cell culture media	108	106% - 110%
Hep Plasma	104	101% - 108%
EDTA Plasma	105	98% - 115%
Cit plasma	106	100% - 111%

Assay time 1h 30m

Assay duration One step assay

1

Species reactivity

Product overview

Reacts with: Human

Human BAFF ELISA Kit (TNFSF13B) (ab188391) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of BAFF (TNFSF13B) protein in cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human BAFF (TNFSF13B) with 12.7 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

B-cell activating factor (BAFF) protein that is encoded by the TNFSF13B gene. BAFF protein is expressed in B-cell lineage cells which functions as a cytokine and is also a member of the tumor necrosis factor (TNF) family of ligands. The BAFF cytokine acts as a potent B-cell activator promoting the proliferation and differentiation of B-cells. This protein is expressed as a membrane-bound type II transmembrane protein on various cell types including monocytes, dendritic cells and bone marrow stromal cells. The membrane bound form can be cleaved from the membrane, generating a soluble protein fragment. BAFF steady-state concentrations depend on B-cells and also on the expression of BAFF-binding receptors.

Inadequate levels of BAFF will fail to activate B-cells to produce enough immunoglobulin and will lead to immunodeficiency. Excessive level of BAFF causes abnormally high antibody production, results in systemic lupus erythmatosis, rheumatoid arthritis, and many other autoimmune diseases.

Platform

Microplate

Properties

Storage instructions

Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human BAFF Capture Antibody	1 x 600µl
10X Human BAFF Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent 4BI	1 x 6ml

Notes

Components	1 x 96 tests
Human BAFF Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 25BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

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.

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.

 $\label{eq:Allower expression} A \ \text{lower expression seen in placenta}, \ \text{heart}, \ \text{lung}, \ \text{fetal liver}, \ \text{thymus}, \ \text{and pancreas}.$

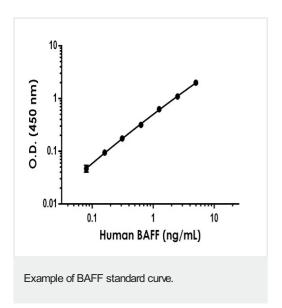
Sequence similarities Belongs to the tumor necrosis factor family.

Post-translational The soluble form derives from the membrane form by proteolytic processing.

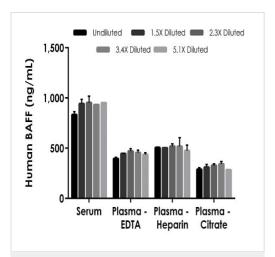
modifications N-glycosylated.

Cellular localization Secreted and Cell membrane.

Images

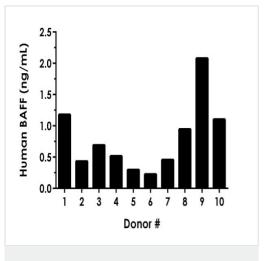


Background-subtracted data values (mean +/- SD) are graphed.



Background-subtracted data values (mean +/- SD, n = 2) are graphed.

Titration of Human Plasma Samples within the working range of the assay.

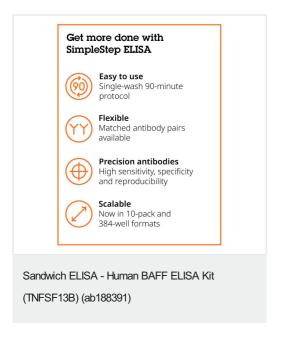


Quantification of BAFF interpolated from standard curve and multiplied by dilution factor.

Titration of individual donor serum samples to within working range of the assay.



SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



To learn more about the advantages of SimpleStep ELISA® kits see <u>here</u>.

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