abcam

Product datasheet

Human CXCL13 ELISA Kit (BCA-1) ab269370

Recombinant SimpleStep ELISA

1 References 8 Images

Overview

Product name Human CXCL13 ELISA Kit (BCA-1)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	8			2.5%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			0.9%

Sample type Cell culture supernatant, Saliva, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 1 pg/ml

Range 6.25 pg/ml - 400 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	117	111% - 123%
Saliva	87	78% - 97%
Serum	90	88% - 94%
Cell culture media	84	78% - 88%
Hep Plasma	80	75% - 85%
EDTA Plasma	91	88% - 94%

Sample type	Average %	Range
Cit plasma	82	79% - 85%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview Human CXCL13 ELISA Kit (BCA-1) (ab269370) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CXCL13 (BCA-1) protein in edta plasma, hep plasma, saliva, serum, cit plasma, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human CXCL13 (BCA-1) with 1 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 (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes CXCL13 (C-X-C motif chemokine 13), also known as BCA-1(B-lymphocyte chemoattractant/B cell-attracting chemokine 1) is a member of the CXC chemokine superfamily. CXCL13 is produced by stromal cells from the liver, spleen, lymph nodes and the gut. It binds to the CXCR5 receptor in lymphoid follicles controlling the homing signal of B cells and subsets of T cells to the lymphoid nodes, compartmentalizing lymphocytes and antigen presenting cells within the follicles of lymphoid tissues. CXCL13 is also required for the embryonic development of most of lymph nodes and Peyer's patches. CXCL13-/- as well as CXCR5-/- mice lack secondary lymphoid structures and show a disrupted splenic architecture.

Platform Pre-coated microplate (12 x 8 well strips)

Properties

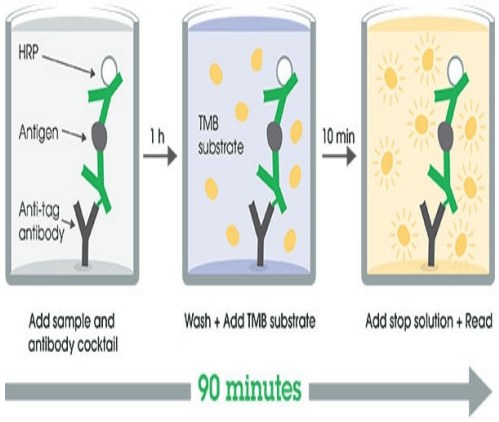
Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Human CXCL13 (BCA-1) Capture Antibody	1 x 600µl
10X Human CXCL13 (BCA-1) Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml

Components	1 x 96 tests
Antibody Diluent 4BI	1 x 6ml
Human CXCL13 (BCA-1) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

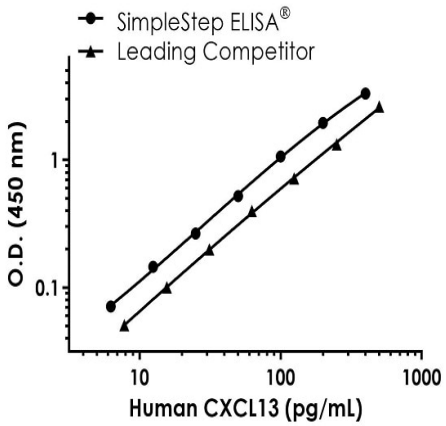
Function	Chemotactic for B-lymphocytes but not for T-lymphocytes, monocytes and neutrophils. Does not induce calcium release in B-lymphocytes. Binds to BLR1/CXCR5.
Tissue specificity	Highest levels in liver, followed by spleen, lymph node, appendix and stomach. Low levels in salivary gland, mammary gland and fetal spleen.
Sequence similarities	Belongs to the intercrine alpha (chemokine CxC) family.
Cellular localization	Secreted.

Images



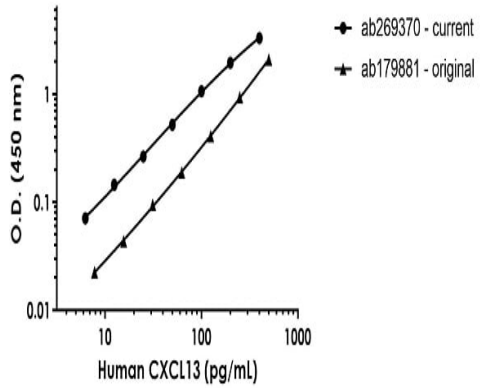
Example of human CXCL13 standard curve in Sample Diluent NS.

SimpleStep ELISA technology allows the formation of the antibody-antigen 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.



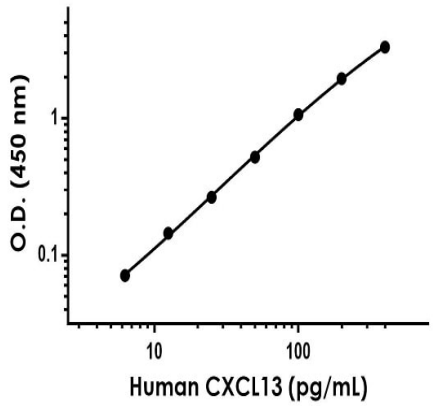
Human CXCL13 standard curve comparison

Standard Curve comparison between human CXCL13 SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



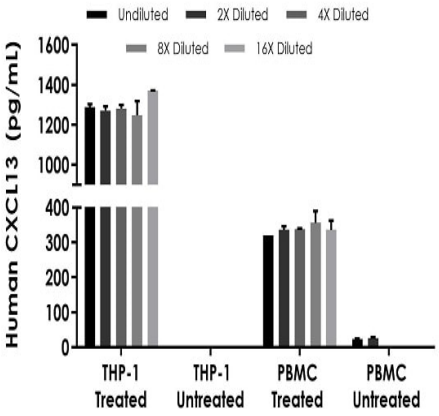
Human CXCL13 standard curve comparison

Standard Curve comparison between the original human MMP3 SimpleStep ELISA kit (**ab179881**) and current human MMP3 SimpleStep ELISA kit (ab269370).



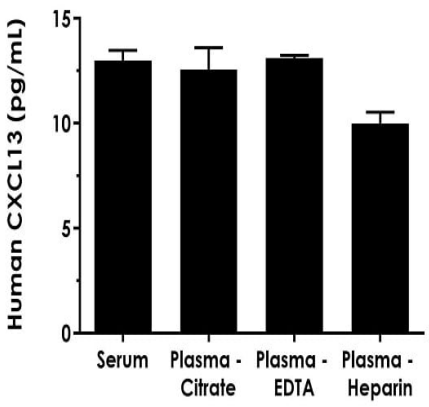
Example of human CXCL13 standard curve in Sample Diluent NS.

The CXCL13 standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



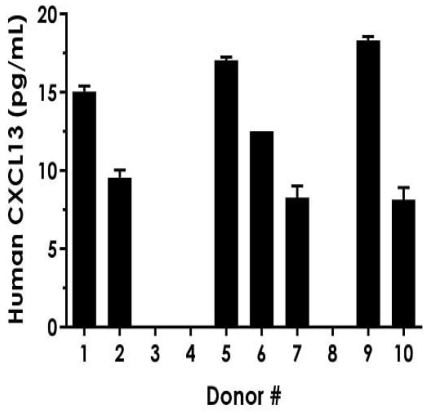
Interpolated concentrations of native CXCL13 in human THP-1 supernatant treated or untreated with Hu-IFN-r, LPS and PBMC cell culture supernatant treated with or without 1.5% PHA-M for 36 hours.

The concentrations of CXCL13 were measured in duplicates, interpolated from the CXCL13 standard curves and corrected for sample dilution. Undiluted samples are as follows: THP-1 treated 25%, THP-1 untreated 100%, PBMC treated 50% and PBMC untreated 100%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CXCL13 concentration was determined to be 1,292 pg/mL in neat THP-1 treated supernatant, undetectable in untreated THP-1 supernatant, 337 pg/mL in treated neat PBMC supernatant and 25 pg/mL in untreated neat PBMC supernatant.



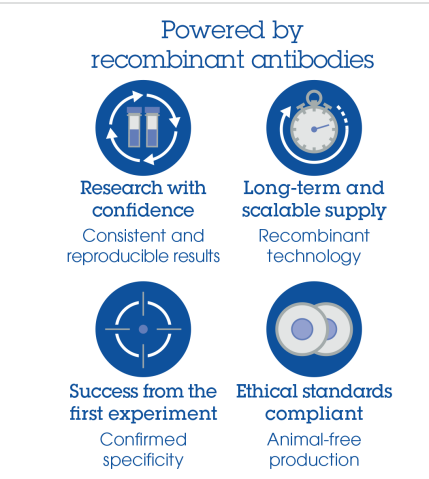
Interpolated concentrations of native CXCL13 in human serum, plasma-citrate, plasma-EDTA and plasma-heparin samples.

The concentrations of CXCL13 were measured in duplicates in neat samples and interpolated from the CXCL13 standard curves. The interpolated values are plotted (mean +/- SD, n=2). The mean CXCL13 concentration was determined to be 13 pg/mL in serum, 12.6 pg/mL in plasma-citrate, 13.1 pg/mL in plasma-EDTA and 10 pg/mL in plasma-heparin.



Serum from ten individual healthy human female donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean of detectable CXCL13 concentration was determined to be 12.7 pg/mL with a range of undetectable to 18.3 pg/mL.



Sandwich ELISA - Human CXCL13 ELISA Kit (BCA-1) (ab269370)

To learn more about the advantages of recombinant antibodies see **here**.

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