

Human XCL1 ELISA Kit ab264620

Recombinant SimpleStep ELISA[®]

[6 Images](#)

Overview

Product name Human XCL1 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Supernatant	8			5.4%

Inter-assay

Sample	n	Mean	SD	CV%
Supernatant	3			3.1%

Sample type Cell culture supernatant, Serum, Cell culture media, Hep Plasma

Assay type Sandwich (quantitative)

Sensitivity 28.3 pg/ml

Range 97.48 pg/ml - 2800 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	105	101% - 109%
Serum	98	96% - 100%
Cell culture media	90	89% - 92%
Hep Plasma	87	85% - 88%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Human

Product overview

Human XCL1 ELISA Kit (ab264620) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of XCL1 protein in cell culture supernatant, hep plasma, serum, and cell culture media. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human XCL1 with 28.3 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

XCL1 (Lymphotactin) is a secreted glycosylated protein of C chemokine family. It plays a role in chemotactic activity of lymphocytes, but not monocytes or neutrophils. In the thymus, XCL1 mediates medullary accumulation of dendritic cells and contributes to T cell development which plays a role in establishment of self-tolerance. XCL2 is functionally related XCL1 homolog, these proteins share 98% amino acids sequence identity.

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 XCL1 Capture Antibody	1 x 600µl
10X Human XCL1 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CPI - HAMA Blocker (ab193969)	1 x 6ml
Human XCL1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 50BS	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

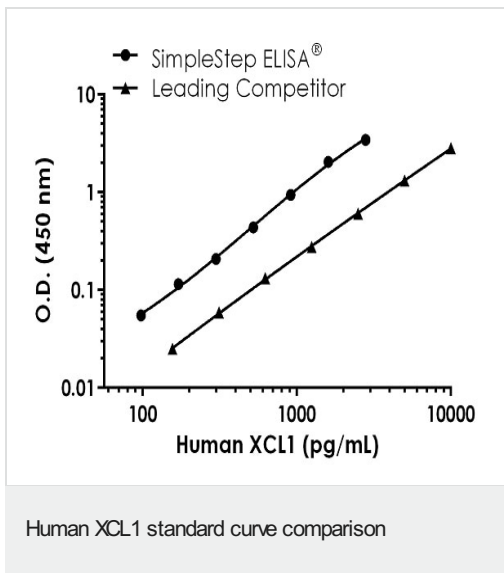
Relevance

Human lymphotactin (Lptn)/XCL1, also named human SCM1 and ATAC, is a member of gamma or C subfamily of chemokines that lack two of the four invariant cysteine residues normally found in the CC and CXC chemokines and have an extended C-terminus. Human lymphotactin encodes a 114 amino acid precursor protein with a 21 amino acid predicted signal peptide. The gene for human and mouse lymphotactin has been mapped to chromosome 1. Human and mouse lymphotactin share approximately 60% amino acid sequence identity. The expression of lymphotactin is restricted to activated T cells such as activated CD8+ T cells and other class I MHC restricted T cells. Since lymphotactin is produced by lymphocytes and acts on lymphocytes, it is speculated that it is a messenger in T cell chemoattraction. Human lymphotactin is chemotactic for lymphocytes and NK cells. Its expression is abundant in some activated T cells such as activated CD8+ T cells and other class I MCH restricted T cells and is absent in CD4+ T cells. It has been shown that lymphotactin is a key regulator of lymphocyte motility and adhesion during acute allograft rejection. The specific receptor for lymphotactin is the orphan receptor XCR1 (GPR5). It has chemotactic activity for lymphocytes and natural killer cells but not for monocytes or neutrophils.

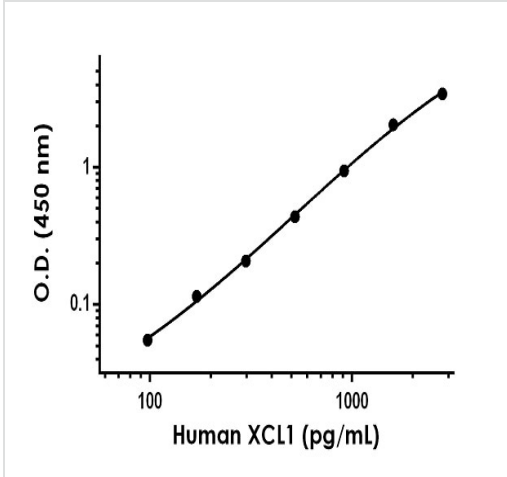
Cellular localization

Secreted

Images

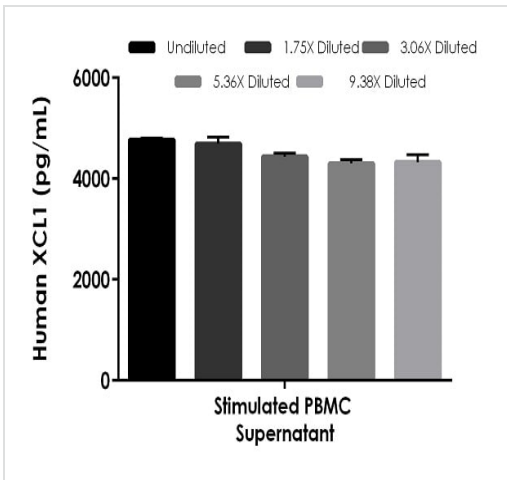


Standard Curve comparison between human XCL1 SimpleStep ELISA kit and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



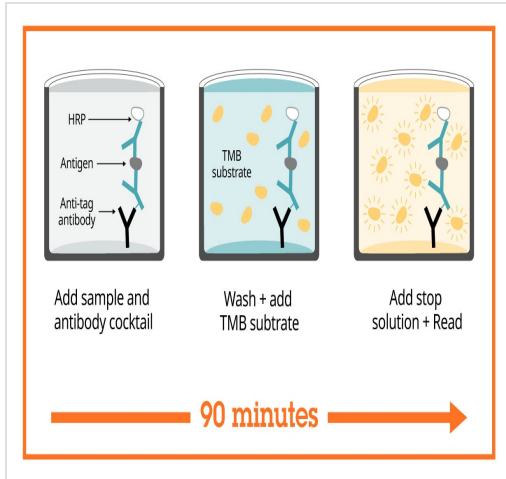
Example of human XCL1 standard curve in Sample Diluent NS.

The XCL1 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 XCL1 in human PMA + Ionomycin treated PBMC cell culture supernatant samples





Peripheral blood mononuclear cells (PBMC) were cultured in the presence (stimulated) or absence of 50 ng/mL PMA and 1 µg/mL Ionomycin for 24 hours. Cell culture supernatants were collected and assayed for the presence of XCL1. The concentrations of XCL1 were measured in duplicates, interpolated from the XCL1 standard curves and corrected for sample dilution. Undiluted samples are as follows: PBMC cell culture supernatant 50%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean XCL1 concentration was determined to be 4,506 pg/mL in PMA + Ionomycin treated PBMC cell culture supernatant and not detectable in untreated samples (data not shown).



Sandwich ELISA - Human XCL1 ELISA Kit
(ab264620)

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.

Powered by recombinant antibodies

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Sandwich ELISA - Human XCL1 ELISA Kit
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To learn more about the advantages of recombinant antibodies see [here](#).

Get more done with SimpleStep ELISA



Easy to use

Single-wash 90-minute protocol



Flexible

Matched antibody pairs available



Precision antibodies

High sensitivity, specificity and reproducibility



Scalable

Now in 10-pack and 384-well formats

To learn more about the advantages of SimpleStep ELISA[®] kits see [here](#).

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