

Human CXCL1 ELISA Kit (GRO alpha) ab190805

重组 SimpleStep ELISA

★★★★★ [1 Abreviews](#) [6 References](#) [9 图像](#)

概述

产品名称 人CXCL1 ELISA试剂盒(GRO alpha)

检测方法 Colorimetric

精确度 批次内

样品	n	Mean	SD	CV%
Supernatant	3			1.9%

批次间

样品	n	Mean	SD	CV%
Supernatant	8			3.7%

样品类型 Cell culture supernatant, Serum, Hep Plasma, Cit plasma, Cerebral Spinal Fluid

检测类型 Sandwich (quantitative)

灵敏度 0.064 pg/ml

范围 2.34 pg/ml - 150 pg/ml

回收率 特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	95	92% - 97%
Serum	83	82% - 85%
Hep Plasma	86	85% - 87%
Cit plasma	81	80% - 82%
Cerebral Spinal Fluid	96	93% - 101%

检测时间 1h 30m

实验步骤 One step assay

种属反应性

与反应: Human

产品概述

Human CXCL1 ELISA Kit (ab190805) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CXCL1 protein in cell culture supernatant, cit plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human CXCL1 with 0.064 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.

说明

CXCL1 (GRO alpha) is a member of the CXC family of chemokines. CXCL1 contains the ELR motif and preferentially chemoattracts neutrophils. Human CXCL1 undergoes post-translational modification into three isoforms called CXCL1(4-73), CXCL1(5-73) and CXCL1(6-73). These isoforms are produced by proteolytic cleavage after secretion from peripheral blood monocytes, and all show higher activity in-vitro than the full-length protein. Two additional CXC proteins, CXCL2 (or GRO beta) and CXCL3 (or GRO gamma), share 90% and 86% amino acid sequence homology, respectively, with CXCL1. Human CXCL1 mRNA is expressed in foreskin fibroblasts, synovial fibroblasts, chondrocytes and osteocytes. Additionally, CXCL1 mRNA has been detected in mammary fibroblasts and epithelial cells, endothelial cells, activated monocytes, macrophages, and neutrophils. CXCL1 is a growth-regulated gene and is overexpressed constitutively in tumorigenic cells. As a result, elevated levels of CXCL1 can be seen in several types of tumors and cancers, including lung cancer and melanoma.

平台

Microplate

性能

存放说明

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

组件	1 x 96 tests	10 x 96 tests
10X Human CXCL1 Capture Antibody	1 x 600µl	1 x 6000µl
10X Human CXCL1 Detector Antibody	1 x 600µl	1 x 6000µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 200ml
Antibody Diluent 5BI	1 x 6ml	10 x 6ml

组件	1 x 96 tests	10 x 96 tests
Human CXCL1 Lyophilized Recombinant Protein (ab9806)	2 vials	2 x 10 vials
Plate Seals	1 unit	1 x 10 units
Sample Diluent NS (ab193972)	1 x 50ml	2 x 250ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 x 10 units
Stop Solution	1 x 12ml	1 x 120ml
TMB Development Solution	1 x 12ml	1 x 120ml

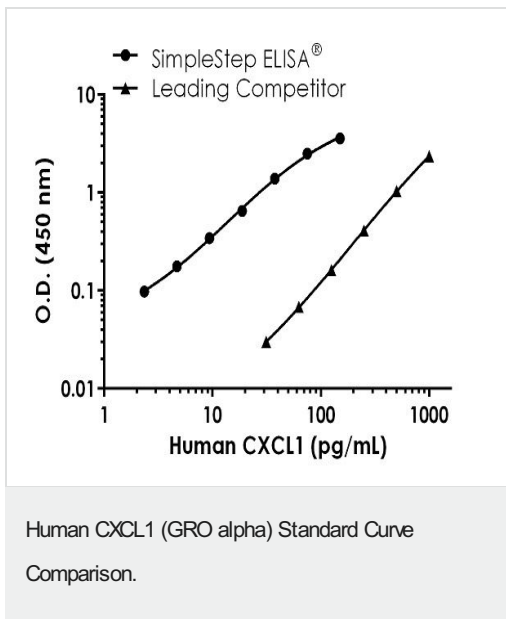
功能 Has chemotactic activity for neutrophils. May play a role in inflammation and exerts its effects on endothelial cells in an autocrine fashion. In vitro, the processed forms GRO-alpha(4-73), GRO-alpha(5-73) and GRO-alpha(6-73) show a 30-fold higher chemotactic activity.

序列相似性 Belongs to the intercrine alpha (chemokine CxC) family.

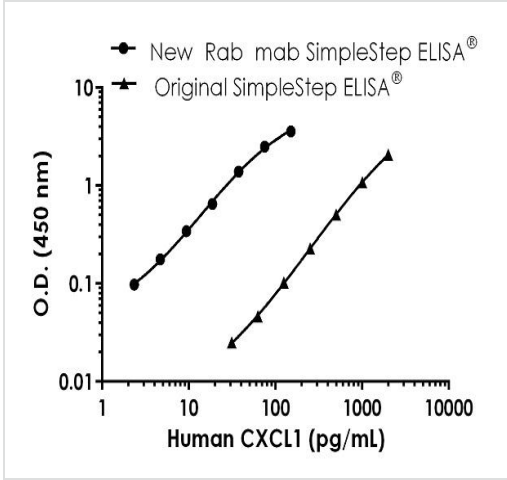
翻译后修饰 N-terminal processed forms GRO-alpha(4-73), GRO-alpha(5-73) and GRO-alpha(6-73) are produced by proteolytic cleavage after secretion from peripheral blood monocytes.

细胞定位 Secreted.

图片

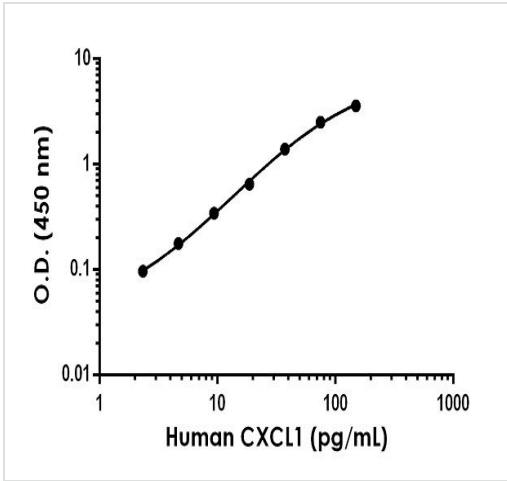


Standard Curve comparison between human CXCL1 SimpleStep ELISA kit (GRO alpha) and traditional ELISA kit from leading competitor. SimpleStep ELISA kit shows increased sensitivity.



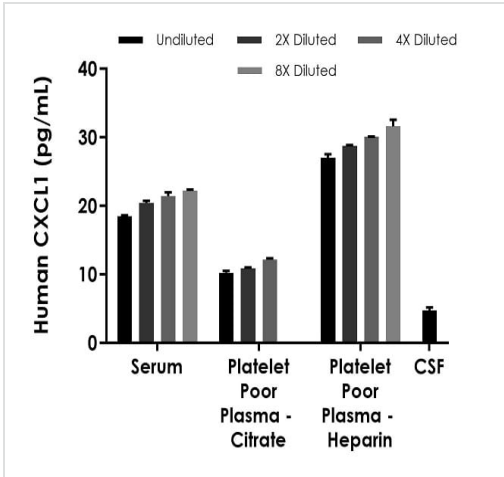
Standard Curve comparison between new human CXCL1 SimpleStep ELISA kit (GRO alpha) and original ELISA kit. The current SimpleStep ELISA kit shows increased sensitivity.

Human CXCL1 (GRO alpha) Standard Curve
Comparison between new and original ELISA kit.



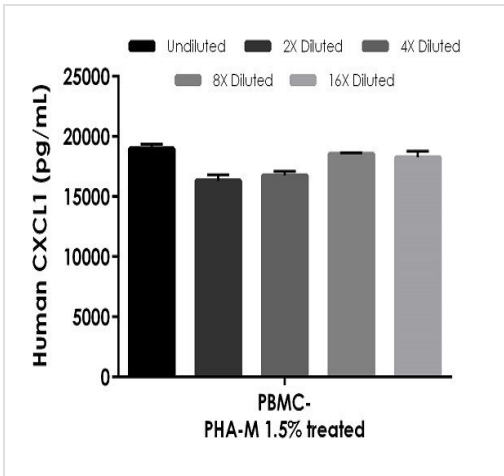
The CXCL1 (GRO alpha) standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human CXCL1 (GRO alpha) standard curve in Sample Diluent NS.



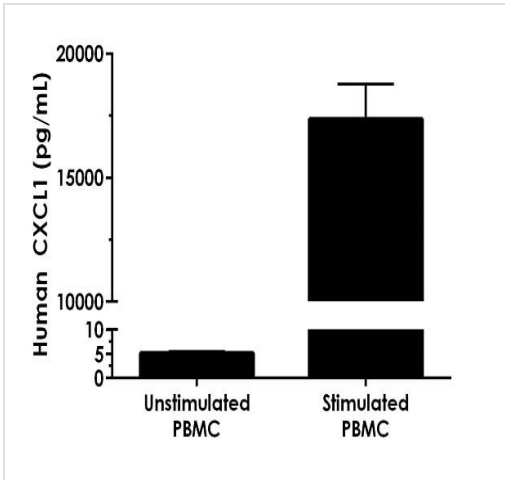
Interpolated concentrations of human CXCL1 in serum, platelet poor plasma (citrate), platelet poor plasma (heparin), and CSF.

Interpolated concentration of native CXCL1 was measured in duplicate at different sample concentrations. Undiluted samples are 100% serum, 100% platelet poor plasma (citrate), 100% platelet poor plasma (heparin), and 50% CSF. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). Sample dilutions are made in Sample Diluent NS.



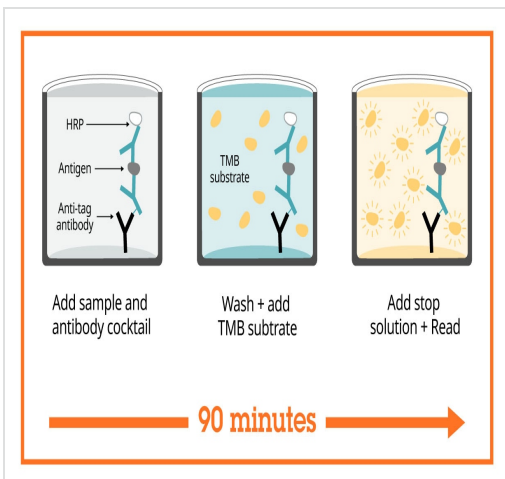
Interpolated concentrations of native CXCL1 (GRO alpha) in human PBMC supernatant from cells treated with 1.5% PHA-M for 46 hours.

The concentrations of CXCL1 (GRO alpha) were measured in duplicate and interpolated from the CXCL1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CXCL1 concentration was determined to be 17.53 ng/mL in treated PBMC supernatant.



Specificity of CXCL1 (GRO alpha) signal on unstimulated and stimulated media supernatants.

Human PBMCs were cultured in RPMI supplemented with 10% fetal calf serum, 2 mM L-glutamine. Cells were cultured for 2 days at 37°C in the presence or absence of 1.5% PHA-M. The concentrations of CXCL1 (GRO alpha) were interpolated from the standard curve in Sample Diluent NS and corrected for sample dilution. The mean CXCL1 concentration was determined to be 5.11 pg/mL in unstimulated PBMC supernatants, and 17533.21 pg/mL in stimulated PBMC supernatants.



Sandwich ELISA - Human CXCL1 ELISA Kit (GRO alpha) (ab190805)

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



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human CXCL1 ELISA Kit (GRO alpha) (ab190805)

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

Sandwich ELISA - Human CXCL1 ELISA Kit (GRO alpha) (ab190805)

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

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