

Product datasheet

Human CTGF ELISA kit ab261851

Recombinant SimpleStep ELISA

[4 References](#) [8 Images](#)

Overview

Product name Human CTGF ELISA kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Serum	8			5.8%

Inter-assay

Sample	n	Mean	SD	CV%
Serum	3			7.4%

Sample type

Serum, Cell culture media, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

64 pg/ml

Range

93.75 pg/ml - 6000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	99	97% - 101%
Cell culture media	110	108% - 111%
Hep Plasma	129	127% - 130%
EDTA Plasma	121	117% - 124%
Cit plasma	100	94% - 105%

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Does not react with: Cow

Product overview

Human CTGF ELISA kit (ab261851) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of CTGF protein in cell culture media, cit plasma, edta plasma, hep plasma, and serum. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human CTGF with 64 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

Human connective tissue growth factor (CTGF), also known as CCN2, and Insulin-like growth factor-binding protein 8, is a matricellular protein encoded by the gene *CTGF*. Along with CYR61 (CCN1) and NOV (CCN3), CTGF belongs to the CCN family of extracellular matrix-associated heparin binding proteins. The CCN proteins contain IGFBP, Von Willebrand type C repeats, and thrombospondin type 1 repeat domains. CTGF has multiple functions including promotion proliferation and differentiation of chondrocytes; mediates heparin- and divalent cation-dependent cell adhesion in many cell types including fibroblasts, myofibroblasts, endothelial and epithelial cells, and enhances fibroblast growth factor-induced DNA synthesis.

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	1 x 384 tests
10X Human Human CTGF Capture Antibody	1 x 600µl	1 x 600µl
10X Human Human CTGF Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
384 well CaptSure™ microplates	0 x 0 unit	1 unit
Antibody Diluent 5BI	1 x 6ml	1 x 6ml
Human CTGF Lyophilized Recombinant Protein	2 vials	2 vials

Components	1 x 96 tests	1 x 384 tests
Plate Seals	1 unit	1 unit
Sample Diluent 25BP	1 x 20ml	1 x 20ml
Sample Diluent NS (ab193972)	1 x 12ml	0 x 0ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	0 x 0 unit
Stop Solution	1 x 12ml	2 x 12ml
TMB Development Solution	1 x 12ml	2 x 12ml

Function

Major connective tissue chemoattractant secreted by vascular endothelial cells. Promotes proliferation and differentiation of chondrocytes. Mediates heparin- and divalent cation-dependent cell adhesion in many cell types including fibroblasts, myofibroblasts, endothelial and epithelial cells. Enhances fibroblast growth factor-induced DNA synthesis.

Tissue specificity

Expressed in bone marrow and thymic cells. Also expressed one of two Wilms tumors tested.

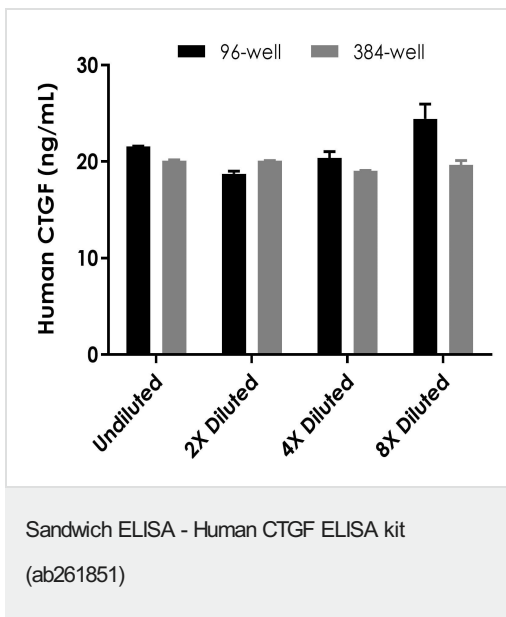
Sequence similarities

Belongs to the CCN family.
 Contains 1 CTCK (C-terminal cystine knot-like) domain.
 Contains 1 IGFBP N-terminal domain.
 Contains 1 TSP type-1 domain.
 Contains 1 VWFC domain.

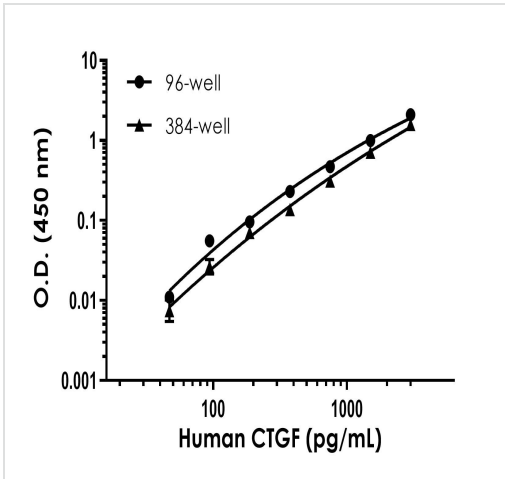
Cellular localization

Secreted > extracellular space > extracellular matrix. Secreted.

Images

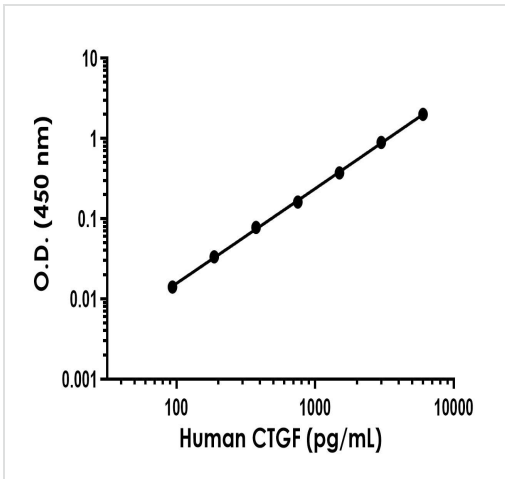


Example of human CTGF standard curve in Sample Diluent 25BP in 96-well vs. 384-well plate.



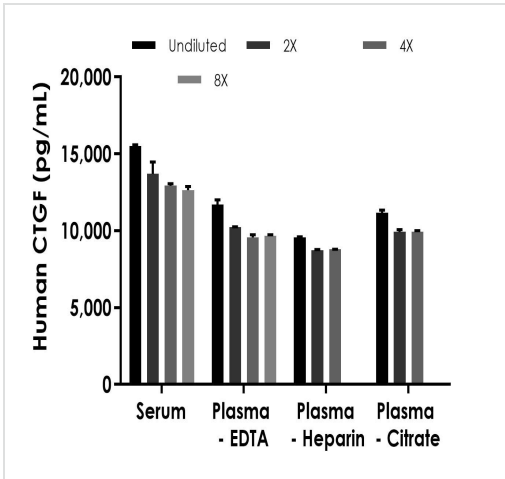
Example of human CTGF standard curve in 96-well vs. 384-well plate. Background-subtracted data values (mean +/- SD) are graphed.

Sandwich ELISA - Human CTGF ELISA kit
(ab261851)



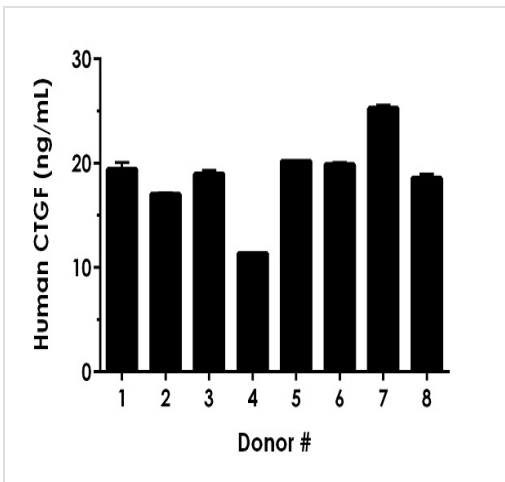
Example of human CTGF standard curve in Sample Diluent 25BP. The CTGF standard curve was prepared as described in Section 10. Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

Example of human CTGF standard curve in Sample Diluent 25BP.



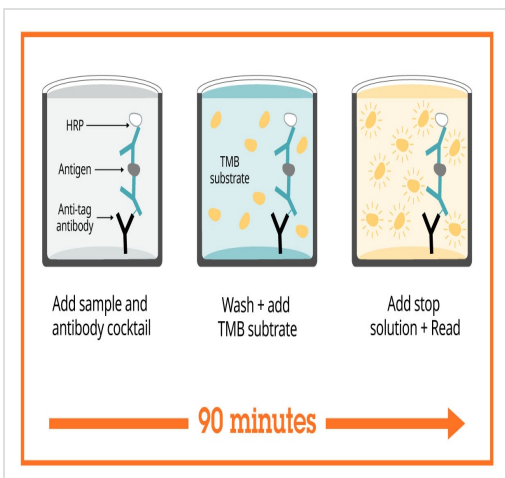
Interpolated concentrations of native CTGF in human serum and plasma samples.

Interpolated concentrations of native CTGF in human serum and plasma samples. The concentrations of CTGF were measured in duplicates, interpolated from the CTGF standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 10%, plasma (citrate) 5%, plasma (heparin) 5% and plasma (EDTA)10%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CTGF concentration was determined to be 13,695 pg/mL in serum, 10,342 pg/mL in plasma (citrate) and 9,035 pg/mL in plasma (heparin) 5% and 10,298 pg/mL plasma (EDTA)10%.



Serum from eight individual healthy human gender donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean CTGF concentration was determined to be 18.8 ng/mL with a range of 11.32 – 25.5 ng/mL.



Sandwich ELISA - Human CTGF ELISA kit (ab261851)

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

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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

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

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