

Product datasheet

Human GCLC ELISA Kit ab233632

Recombinant SimpleStep ELISA[®]

[2 References](#) [5 Images](#)

Overview

Product name Human GCLC ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	8			7%

Sample type

Cell culture extracts

Assay type

Sandwich (quantitative)

Sensitivity

81 pg/ml

Range

781.3 pg/ml - 50000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Cell culture extracts	95	% - %

Assay time

1h 30m

Assay duration

One step assay

Species reactivity

Reacts with: Human

Product overview

Human GCLC ELISA Kit (ab233632) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of GCLC protein in cell culture extracts. It uses our proprietary SimpleStep ELISA[®] technology. Quantitate Human GCLC with 81 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 Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

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

Properties

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

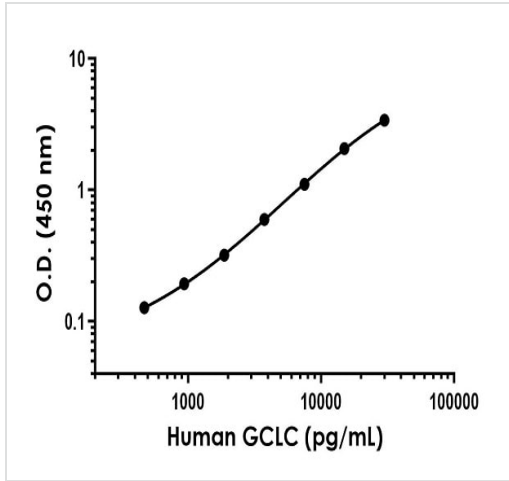
Components	1 x 96 tests
10X Human GCLC Capture Antibody	1 x 600µl
10X Human GCLC Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BI	1 x 6ml
Human GCLC Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
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

Pathway Sulfur metabolism; glutathione biosynthesis; glutathione from L-cysteine and L-glutamate: step 1/2.

Involvement in disease Defects in GCLC are the cause of hemolytic anemia (HAGGSD) [MIM:230450].

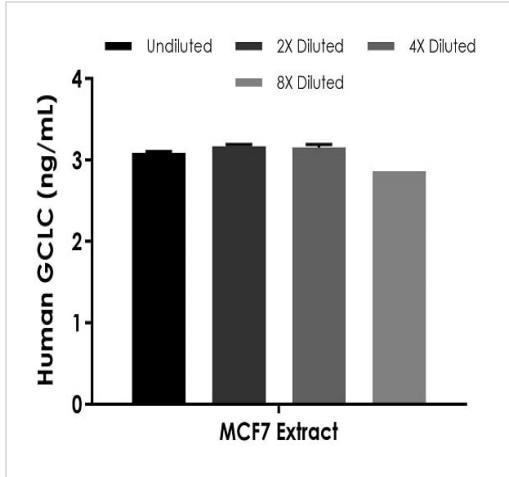
Sequence similarities Belongs to the glutamate--cysteine ligase type 3 family.

Images



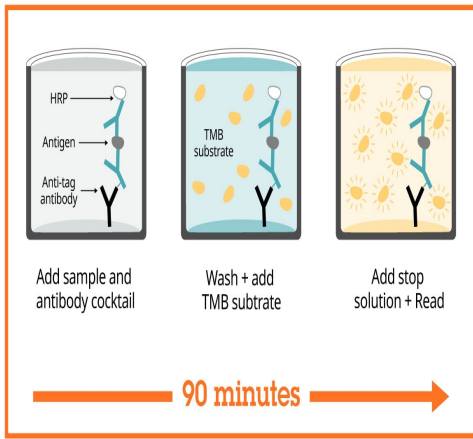
Background-subtracted data values (mean +/- SD) are graphed.

Example of human GCLC standard curve in 1X Cell Extraction Buffer PTR.



The concentrations of GCLC were measured in duplicate and interpolated from the GCLC standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean GCLC concentration was determined to be 3,074 pg/mL.

Interpolated concentrations of native GCLC in MCF-7 cell extract samples based on a 1,000 ?g/mL extract load.



Sandwich ELISA - Human GCLC ELISA Kit
(ab233632)

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 GCLC ELISA Kit
(ab233632)

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 GCLC ELISA Kit
(ab233632)

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors