abcam

Product datasheet

Human Cyclin El ELISA Kit ab231929

Recombinant SimpleStep ELISA

6 Images

Overview

Product name Human Cyclin E1 ELISA Kit

Detection method Colorimetric

Precision Intra-assay

| Sample | n | Mean | SD | CV% |
|--------------|---|------|----|------|
| Cell extract | 5 | | | 2.1% |

Inter-assay

| Sample | n | Mean | SD | CV% | |
|--------------|---|------|----|-------|--|
| Cell extract | 3 | | | 12.4% | |

Sample type Cell culture extracts, Tissue Extracts

Assay type Sandwich (quantitative)

Sensitivity 1.2 ng/ml

Range 3.91 ng/ml - 250 ng/ml

Recovery Sample specific recovery

| Sample type | Average % | Range |
|-----------------------|-----------|------------|
| Cell culture extracts | 104 | 98% - 108% |
| Tissue Extracts | 101 | 98% - 102% |

Assay time 1h 30m

Assay duration One step assay

Species reactivity Reacts with: Human

Product overview Human Cyclin E1 ELISA Kit (ab231929) is a single-wash 90 min sandwich ELISA designed for

> the quantitative measurement of Cyclin E1 protein in cell culture extracts and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human Cyclin E1 with 1.2 ng/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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

The standard is affinity purified.

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 Cyclin E1 Capture Antibody | 1 x 600µl |
| 10X Human Cyclin E1 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 Cyclin E1 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 |

| Components | 1 x 96 tests |
|--------------------------|--------------|
| TMB Development Solution | 1 x 12ml |

Function
Essential for the control of the cell cycle at the G1/S (start) transition.

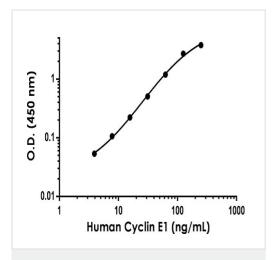
Highly expressed in testis and placenta. Low levels in bronchial epithelial cells.

Sequence similarities
Belongs to the cyclin family. Cyclin E subfamily.

Post-translational
Phosphorylation of Thr-395 by GSK3 and of Ser-399 by CDK2 accelerates degradation via the ubiquitin proteasome pathway. Phosphorylated upon DNA damage, probably by ATM or ATR.

Images

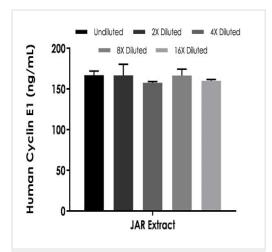
Cellular localization



Nucleus.

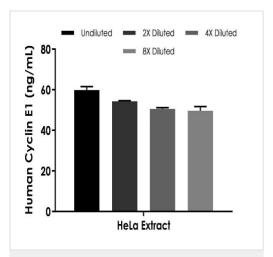
Example of human Cyclin E1 standard curve in 1X Cell Extraction Buffer PTR

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



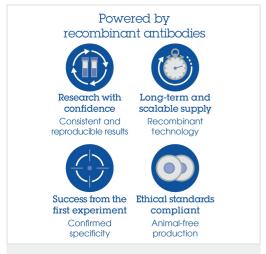
Interpolated concentrations of native Cyclin E1 in JAR cell extract based on a 1,000 $\mu g/mL$ extract load

The concentrations of Cyclin E1 were measured in duplicate and interpolated from the Cyclin E1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Cyclin E1 concentration was determined to be 163 ng/mL in JAR cell extract.



Interpolated concentrations of native Cyclin E1 in HeLa cell extract based on a 1,500 $\mu g/mL$ extract load

The concentrations of Cyclin E1 were measured in duplicate and interpolated from the Cyclin E1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Cyclin E1 concentration was determined to be 54 ng/mL in HeLa cell extract.

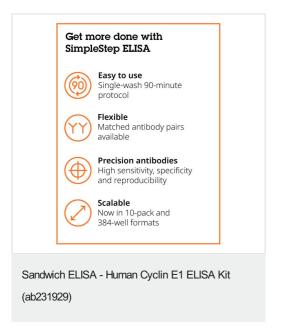


Sandwich ELISA - Human Cyclin E1 ELISA Kit (ab231929)

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



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.



To learn more about the advantages of SimpleStep $\mathsf{ELISA}^{\$}$ kits see $\underline{\mathsf{here}}$.

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