

Human SIRT2 ELISA Kit ab227895

Recombinant SimpleStep ELISA[®]

[6 Images](#)

Overview

Product name Human SIRT2 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	5			2.5%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			4.1%

Sample type

Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

3 pg/ml

Range

15.6 pg/ml - 1000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	95	93% - 96%
Cell culture extracts	104	93% - 116%
Tissue Extracts	108	94% - 117%
Hep Plasma	84	82% - 86%
EDTA Plasma	84	83% - 85%
Cit plasma	83	80% - 84%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	Reacts with: Human
Product overview	Human SIRT2 ELISA Kit (ab227895) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of SIRT2 protein in cell culture extracts, cit plasma, edta plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Human SIRT2 with 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

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 SIRT2 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 4BR	1 x 6ml
Human SIRT2 Capture Antibody (Lyophilized)	1 vial
Human SIRT2 Lyophilized Recombinant Protein	2 vials

Components	1 x 96 tests
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

Function

NAD-dependent protein deacetylase, which deacetylates the 'Lys-40' of alpha-tubulin. Involved in the control of mitotic exit in the cell cycle, probably via its role in the regulation of cytoskeleton.

Tissue specificity

Widely expressed. Highly expressed in heart, brain and skeletal muscle, while it is weakly expressed in placenta and lung. Down-regulated in many gliomas suggesting that it may act as a tumor suppressor gene in human gliomas possibly through the regulation of microtubule network.

Sequence similarities

Belongs to the sirtuin family.
Contains 1 deacetylase sirtuin-type domain.

Developmental stage

Peaks during mitosis. After mitosis, it is probably degraded by the 26S proteasome.

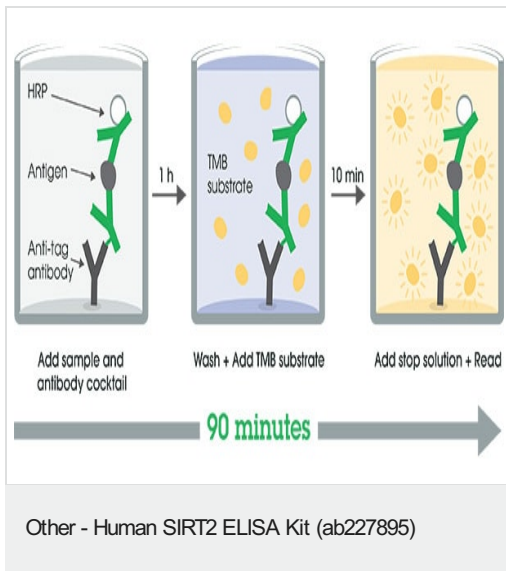
Post-translational modifications

Phosphorylated at the G2/M transition of the cell cycle.

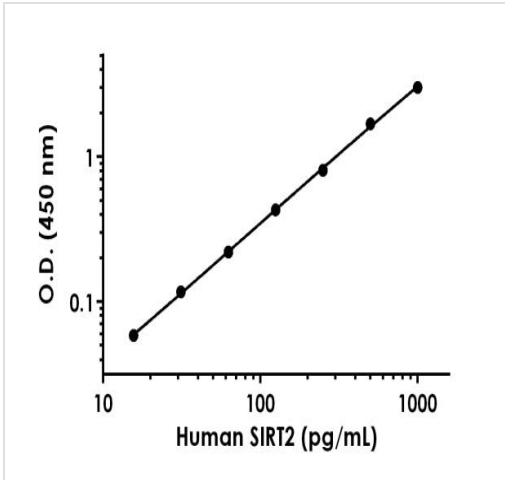
Cellular localization

Cytoplasm > cytoskeleton. Colocalizes with microtubules.

Images

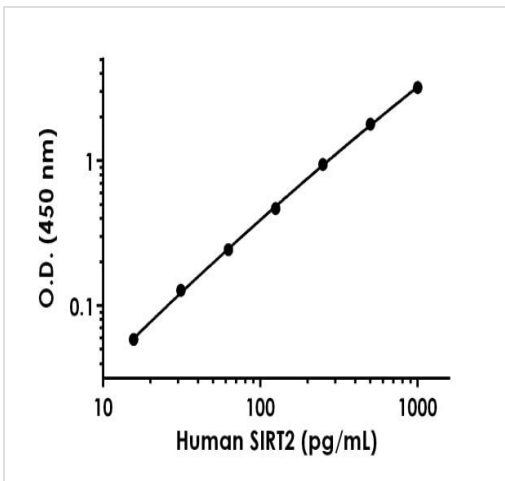


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



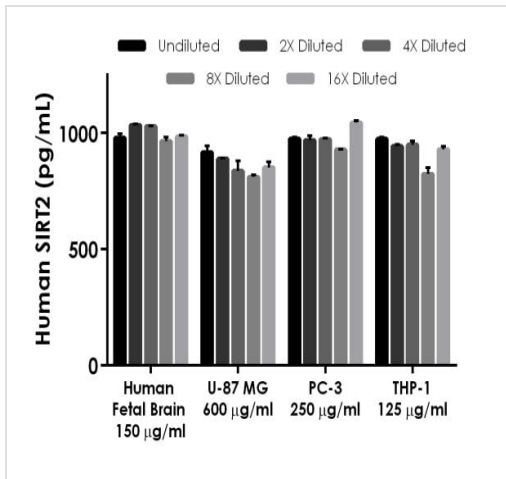
Background-subtracted data values (mean +/- SD) are graphed.

Example of Human SIRT2 standard curve in 1X Cell Extraction Buffer PTR.



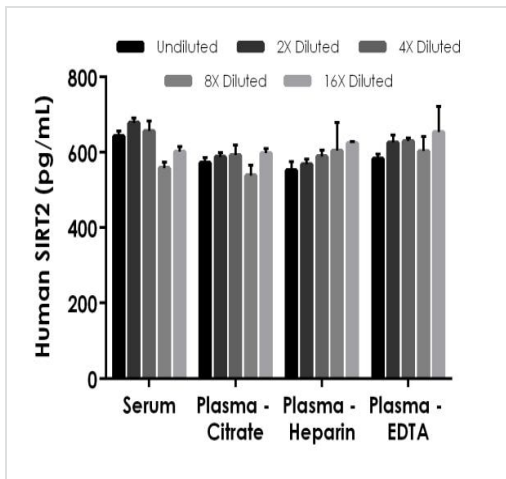
Background-subtracted data values (mean +/- SD) are graphed.

Example of Human SIRT2 standard curve in Sample Diluent NS.



Interpolated concentrations of native SIRT2 in Human Fetal Brain Homogenate Extract, U-87 MG Extract, PC-3 Extract, and THP-1 Extract.

Interpolated concentrations of native SIRT2 based on a 150 µg/ml extract load in Human Fetal Brain Homogenate Extract, 600 µg/ml in U-87 MG Extract, 250 µg/ml in PC-3 Extract, and 125 µg/ml in THP-1 Extract. The concentrations of SIRT2 were measured in duplicate and interpolated from the SIRT2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean SIRT2 concentration was determined to be 998 pg/mL in Human Fetal Brain Homogenate Extract, 862 pg/mL in U-87 MG Extract, 978 pg/ml in PC-3 Extract, and 925 pg/ml in THP-1 Extract.



Interpolated concentrations of spiked SIRT2 in Human serum and plasma samples.

The concentrations of SIRT2 were measured in duplicates, interpolated from the SIRT2 standard curves and corrected for sample dilution. Undiluted samples are as follows: serum 25%, plasma (citrate) 25%, plasma (heparin) 25%, and plasma (EDTA) 25%. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2).

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recombinant antibodies



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Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Sandwich ELISA - Human SIRT2 ELISA Kit
(ab227895)

To learn more about the advantages of recombinant antibodies see [here](#).

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