

Product datasheet

Human SIRT6 knockout HeLa cell lysate ab257673

4 Images

Overview

Product name	Human SIRT6 knockout HeLa cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 2 bp deletion in exon 1 and 4 bp deletion in exon 1.
Passage number	<20
Knockout validation	Sanger Sequencing, Western Blot (WB)
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT.

**Usage of SDS sample buffer is not recommended with these lyophilized lysates.*

Notes

Lysate preparation: Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found [here](#). Please refer to our lysis protocol for further details on how our lysates are prepared.

User storage instructions: Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage.

Access thousands of knockout cell lysates, generated from commonly used cancer cell lines. [See here for more information on knockout cell lysates.](#)

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.

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Tested applications **Suitable for:** WB

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
ab260317 - Human SIRT6 knockout HeLa cell lysate	1 x 100µg
ab255552 - Human wild-type HeLa cell lysate	1 x 100µg

Cell type epithelial
Disease Adenocarcinoma
Gender Female
STR Analysis Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8, 12 CSF1PO: 9, 10

Target

Function NAD-dependent protein deacetylase. Has deacetylase activity towards histone H3K9Ac and H3K56Ac. Modulates acetylation of histone H3 in telomeric chromatin during the S-phase of the cell cycle. Deacetylates histone H3K9Ac at NF-kappa-B target promoters and may down-regulate the expression of a subset of NF-kappa-B target genes. Acts as a corepressor of the transcription factor HIF1A to control the expression of multiple glycolytic genes to regulate glucose homeostasis. Required for genomic stability. Regulates the production of TNF protein. Has a role in the regulation of life span (By similarity). Deacetylation of nucleosomes interferes with RELA binding to target DNA. May be required for the association of WRN with telomeres during S-phase and for normal telomere maintenance. Required for genomic stability. Required for normal IGF1 serum levels and normal glucose homeostasis. Modulates cellular senescence and apoptosis. On DNA damage, promotes DNA end resection via deacetylation of RBBP8. Has very weak deacetylase activity and can bind NAD(+) in the absence of acetylated substrate.

Sequence similarities Belongs to the sirtuin family. Class IV subfamily.
Contains 1 deacetylase sirtuin-type domain.

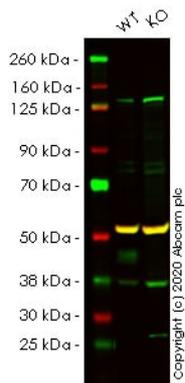
Cellular localization Nucleus, nucleoplasm. Predominantly nuclear. Associated with telomeric heterochromatin regions.

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab257673 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 39 kDa.

Images



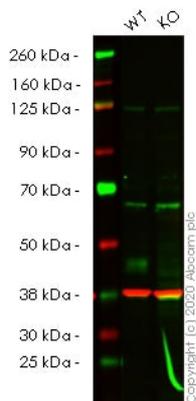
Western blot - Human SIRT6 knockout HeLa cell lysate (ab257673)

Lane 1: Wild-type HeLa cell lysate (20 µg)

Lane 2: SIRT6 knockout HeLa cell lysate (20 µg)

Lanes 1-2: Merged signal (red and green). Green - [ab191385](#) observed at 40 kDa. Red - loading control [ab7291](#) observed at 50 kDa.

[ab191385](#) Anti-SIRT6 antibody [EPR18463] was shown to specifically react with SIRT6 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265054](#) (knockout cell lysate ab257673) was used. Wild-type and SIRT6 knockout samples were subjected to SDS-PAGE. [ab191385](#) and Anti-alpha Tubulin antibody [DM1A] - Loading Control ([ab7291](#)) were incubated overnight at 4°C at 1 in 1000 Dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Human SIRT6 knockout HeLa cell lysate (ab257673)

Lane 1: Wild-type HeLa cell lysate (20 µg)

Lane 2: SIRT6 knockout HeLa cell lysate (20 µg)

Lanes 1-2: Merged signal (red and green). Green - [ab176345](#) observed at 45 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

[ab176345](#) Anti-SIRT6 antibody [EPR5079(N)] was shown to specifically react with SIRT6 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265054](#) (knockout cell lysate ab257673) was used. Wild-type and SIRT6 knockout samples were subjected to SDS-PAGE. [ab176345](#) and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 1000 Dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

```

Mut  CTTGTCCGCGTACGGCGACAGCCCC----CGTAATTCACCGACATCCTCGACTGCCCCAC
      |||
WT   CTTGTCCGCGTACGGCGACAGCCCCCGCGTAATTCACCGACATCCTCGACTGCCCCAC
  
```

Sanger Sequencing - Human SIRT6 knockout HeLa cell lysate (ab257673)

Allele-1: 4 bp deletion in exon 1

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Mut  CTTGTCCGCGTACGGCGACAGCCCC - CGCGTAATTCACCGACATCCTCGACTGCCCCAC
      |||
WT   CTTGTCCGCGTACGGCGACAGCCCCCGCGTAATTCACCGACATCCTCGACTGCCCCAC
```

Allele-2: 2 bp deletion in exon 1

Sanger Sequencing - Human SIRT6 knockout HeLa
cell lysate (ab257673)

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