

Product datasheet

Anti-SIRT6 antibody [EPR18463] ab191385

KO VALIDATED Recombinant RabMAb

★★★★★ [2 Abreviews](#) [24 References](#) [10 Images](#)

Overview

Product name	Anti-SIRT6 antibody [EPR18463]
Description	Rabbit monoclonal [EPR18463] to SIRT6
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IP, WB Unsuitable for: ChIP-seq
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, Jurkat, NIH/3T3, C6, RAW 264.7 and PC-12 cell lysates; HeLa nuclear lysate; rat brain and spleen lysates. ICC/IF: HeLa and HCT 116 cells. IP: Jurkat whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18463

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab191385 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
ICC/IF		1/1000.
IP		1/40.
WB	★★★★★ (1)	1/2000. Detects a band of approximately 42 kDa (predicted molecular weight: 39 kDa).

Application notes

Is unsuitable for ChIP-seq.

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.

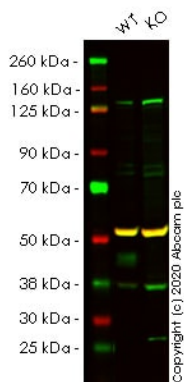
Sequence similarities

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.

Images



Western blot - Anti-SIRT6 antibody [EPR18463] (ab191385)

All lanes : Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : SIRT6 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

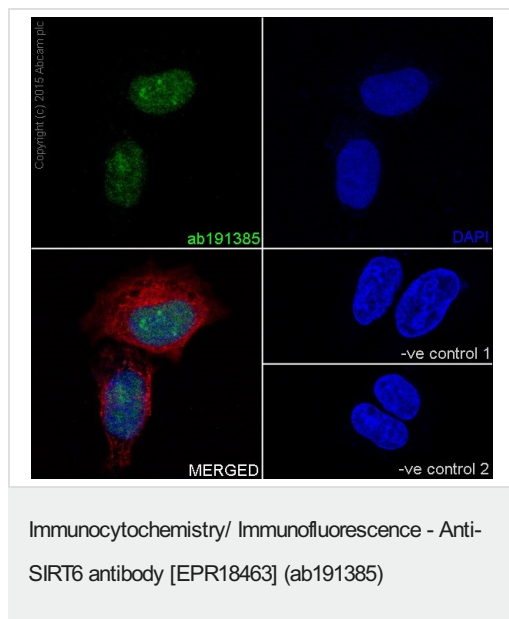
Performed under reducing conditions.

Predicted band size: 39 kDa

Observed band size: 42 kDa

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.



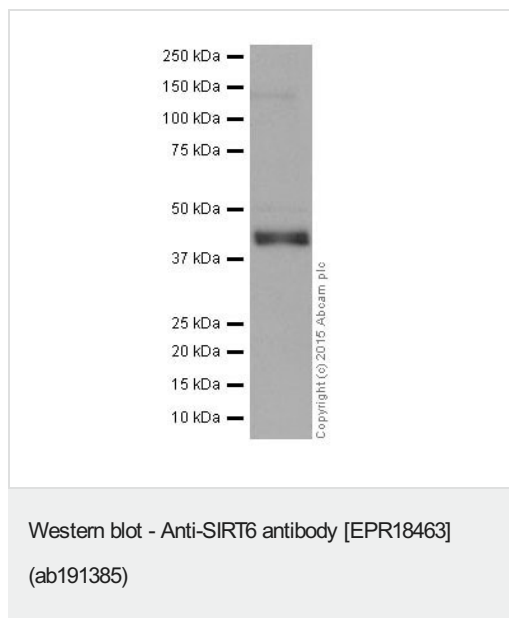
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling SIRT6 with ab191385 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on HeLa cell line. The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin mouse MAb ([ab7291](#)) at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) ([ab150120](#)) secondary antibody at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab191385 at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) ([ab150120](#)) secondary antibody at 1/1000 dilution.

-ve control 2: Anti-alpha Tubulin mouse MAb ([ab7291](#)) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/10000 dilution + HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

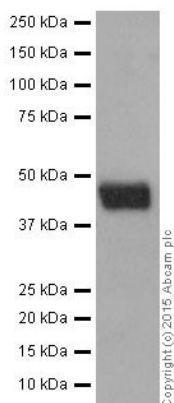
Predicted band size: 39 kDa

Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

The observed MW and doublets are consistent with what has been described in the literature. Two bands run closely together as doublets representing distinct isoforms; see UniProt annotation and PMID 24169447.



Western blot - Anti-SIRT6 antibody [EPR18463]
(ab191385)

Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/10000 dilution +
Jurkat (Human T cell leukemia cell line from peripheral blood) cell
lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

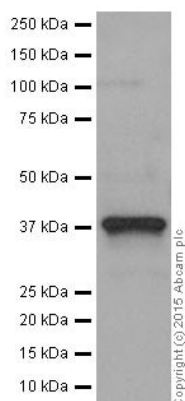
Predicted band size: 39 kDa

Observed band size: 42 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The observed MW and doublets are consistent with what has been described in the literature. Two bands run closely together as doublets representing distinct isoforms; see UniProt annotation and PMID 24169447.



Western blot - Anti-SIRT6 antibody [EPR18463]
(ab191385)

Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/10000 dilution +
NIH/3T3 (Mouse embryonic fibroblast cell line) cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

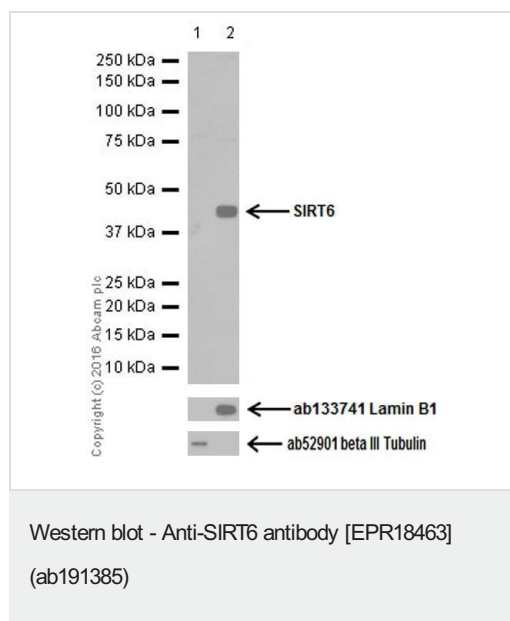
Predicted band size: 39 kDa

Observed band size: 39 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The observed MW and doublets are consistent with what has been described in the literature. Two bands run closely together as doublets representing distinct isoforms; see UniProt annotation and PMID 24169447.



All lanes : Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/5000 dilution

Lane 1 : HeLa (Human epithelial cell line from cervix adenocarcinoma) cytoplasmic lysate

Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) nuclear lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

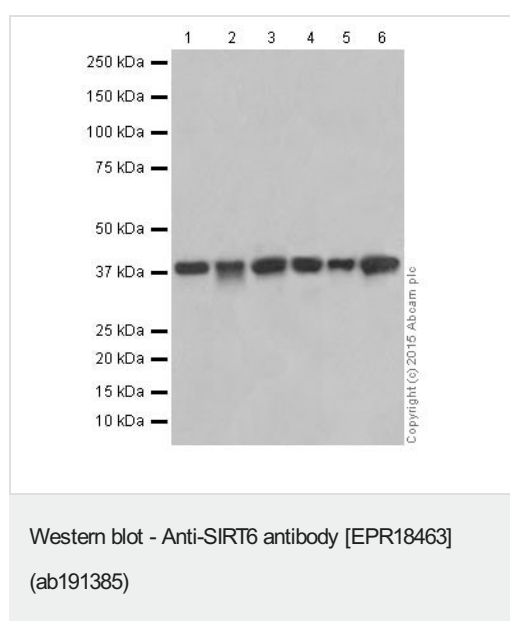
Predicted band size: 39 kDa

Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

SIRT6 is detected in nuclear fractions.



All lanes : Anti-SIRT6 antibody [EPR18463] (ab191385) at 1/2000 dilution

Lane 1 : Rat brain lysate

Lane 2 : Rat spleen lysate

Lane 3 : C6 (Rat glial tumor cell line) cell lysate

Lane 4 : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate

Lane 5 : PC-12 (Rat adrenal gland pheochromocytoma cell line) cell lysate

Lane 6 : NIH/3T3 (Mouse embryonic fibroblast cell line) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000

dilution

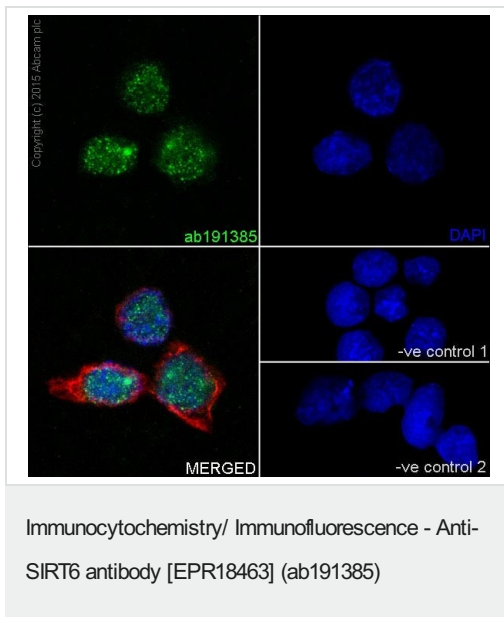
Predicted band size: 39 kDa

Observed band size: 39 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the literature (PMID 24169447).



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HCT 116 (Human colorectal carcinoma cell line) cells labeling SIRT6 with ab191385 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green).

Confocal image showing nuclear staining on HCT 116 cell line.

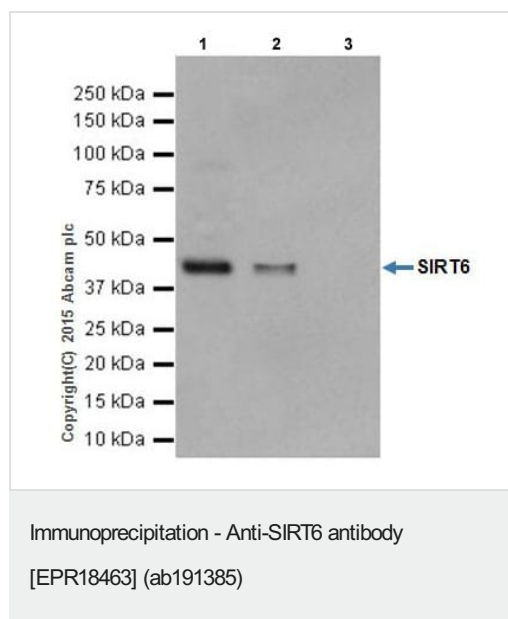
The nuclear counterstain is DAPI (blue).

Tubulin is detected with Anti-alpha Tubulin mouse MAb ([ab7291](#)) at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) ([ab150120](#)) secondary antibody at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab191385 at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) ([ab150120](#)) secondary antibody at 1/1000 dilution.

-ve control 2: Anti-alpha Tubulin mouse MAb ([ab7291](#)) at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



SIRT6 was immunoprecipitated from 1 mg of Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate with ab191385 at 1/40 dilution.

Western blot was performed from the immunoprecipitate using ab191385 at 1/2000 dilution.

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: Jurkat whole cell lysate 10µg (Input).

Lane 2: ab191385 IP in Jurkat whole cell lysate.

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) IP instead of ab191385 in Jurkat whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

The observed MW and doublets are consistent with what has been described in the literature. Two bands run closely together as doublets representing distinct isoforms; see UniProt annotation and PMID 24169447.

Why choose a recombinant antibody?

<p>Research with confidence Consistent and reproducible results</p>	<p>Long-term and scalable supply Recombinant technology</p>
<p>Success from the first experiment Confirmed specificity</p>	<p>Ethical standards compliant Animal-free production</p>

Anti-SIRT6 antibody [EPR18463] (ab191385)

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

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