abcam

Product datasheet

Anti-SIRT6 antibody [EPR18463] - BSA and Azide free ab236024

KO VALIDATED Recombinant RabMAb

5 Images

Overview

Product name	Anti-SIRT6 antibody [EPR18463] - BSA and Azide free
Description	Rabbit monoclonal [EPR18463] to SIRT6 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IP, ICC/IF, 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	ICC/IF: HeLa and HCT 116 cells. WB: HeLa cell lysate. IP: Jurkat cell lysate.
General notes	ab236024 is the carrier-free version of **ab191385**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18463
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236024 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
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 39 kDa (predicted molecular weight: 39 kDa).

Application notes Is unsuitable for ChIP-seq.

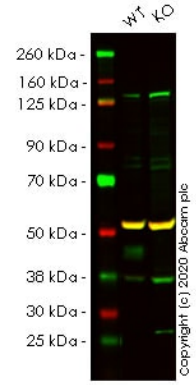
Target

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] - BSA and Azide free (ab236024)

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.

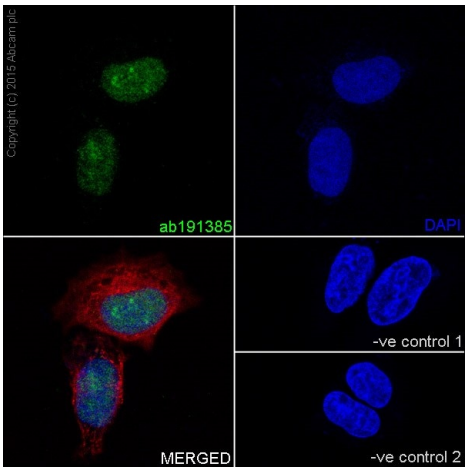
Performed under reducing conditions.

Predicted band size: 39 kDa
Observed band size: 42 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab191385**).

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.



Immunocytochemistry/ Immunofluorescence - Anti-SIRT6 antibody [EPR18463] - BSA and Azide free (ab236024)

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).

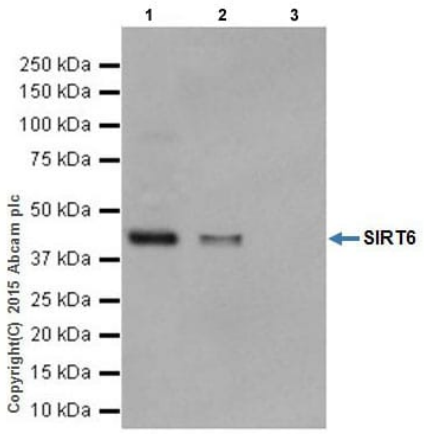
Tubulin is detected with Anti-alpha Tubulin mouse MAb (**ab7291**) at 1/1000 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (**ab150120**) secondary antibody at 1/1000 dilution (red).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab191385**).



Immunoprecipitation - Anti-SIRT6 antibody [EPR18463] - BSA and Azide free (ab236024)

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.

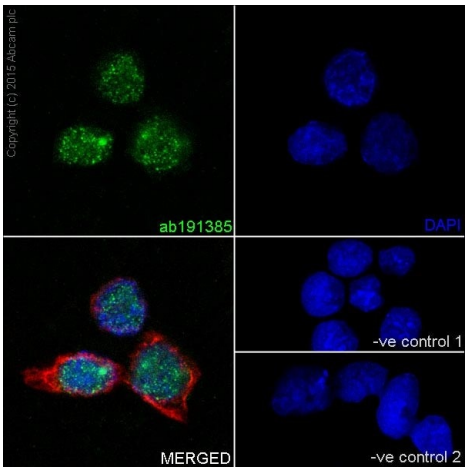
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab191385**).



Immunocytochemistry/ Immunofluorescence - Anti-SIRT6 antibody [EPR18463] - BSA and Azide free (ab236024)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab191385**).

Anti-SIRT6 antibody [EPR18463] - BSA and Azide free (ab236024)

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