

Product datasheet

Anti-SIRT6 antibody [EPR5079(N)] ab176345

KO VALIDATED Recombinant RabMAb

★★★★★ 1 Abreviews 1 References 3 Images

Overview

Product name	Anti-SIRT6 antibody [EPR5079(N)]
Description	Rabbit monoclonal [EPR5079(N)] to SIRT6
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human
Immunogen	within Human SIRT6 aa 300 to the C-terminus (Cysteine residue). The exact sequence is proprietary. Database link: Q8N6T7
Positive control	WB: K562, Jurkat, 293T, HepG2 and HeLa whole cell lysate (ab150035).
General notes	<p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> <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> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</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: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5079(N)
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab176345** 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	★★★★☆	1/1000 - 1/5000. Predicted molecular weight: 39 kDa.

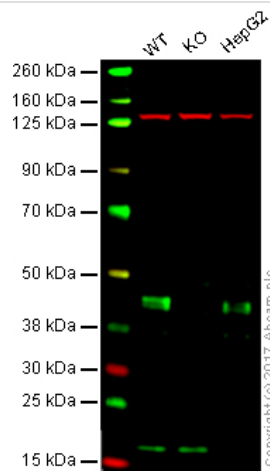
Target

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 [EPR5079(N)] (ab176345)

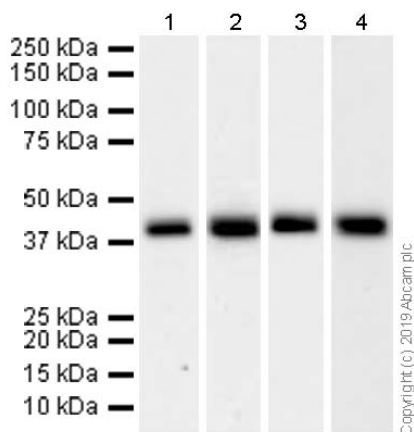
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: SIRT6 knockout HAP1 whole cell lysate (20 µg)

Lane 3: HepG2 whole cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - ab176345 (unpurified) observed at 45 kDa. Red - loading control, ab18058, observed at 130 kDa.

ab176345 was shown to specifically recognize SIRT6 in wild-type HAP1 cells along with additional cross reactive bands. No band was observed when SIRT6 knockout samples were examined. Wild-type and SIRT6 knockout samples were subjected to SDS-PAGE. Ab176345 and ab18058 (Mouse anti Vinculin loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/30,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-SIRT6 antibody [EPR5079(N)] (ab176345)

All lanes : Anti-SIRT6 antibody [EPR5079(N)] (ab176345) at 1/1000 dilution (Purified)

Lane 1 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysates

Lane 2 : HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates

Lane 3 : Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates

Lane 4 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lysates/proteins at 15 µg per lane.

Secondary

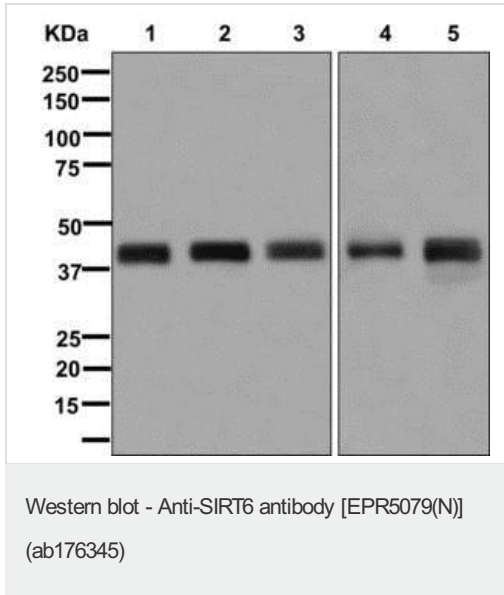
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 39 kDa

Observed band size: 42-43 kDa

[why is the actual band size different from the predicted?](#)

The doublets detected and observed molecular weights are consistent with what have been described in literatures PMID: 30542728, 29143563, 24169447 and 30670969.



All lanes : Anti-SIRT6 antibody [EPR5079(N)] (ab176345) at 1/1000 dilution (unpurified)

Lane 1 : K562 cell lysate

Lane 2 : Jurkat cell lysate

Lane 3 : 293T cell lysate

Lane 4 : HepG2 cell lysate

Lane 5 : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 39 kDa

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