

Anti-SIRT3 Antibody
Rabbit polyclonal antibody to SIRT3
Catalog # AP60511**Specification**

Anti-SIRT3 Antibody - Product Information

Application	WB
Primary Accession	O9NTG7
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43573

Anti-SIRT3 Antibody - Additional Information**Gene ID** 23410**Other Names**

SIR2L3; NAD-dependent protein deacetylase sirtuin-3 mitochondrial; hSIRT3; Regulatory protein SIR2 homolog 3; SIR2-like protein 3

Target/Specificity

Recognizes endogenous levels of SIRT3 protein.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-SIRT3 Antibody - Protein Information**Name** SIRT3**Synonyms** SIR2L3**Function**

NAD-dependent protein deacetylase (PubMed:12186850, PubMed:12374852, PubMed:16788062, PubMed:18680753, PubMed:18794531, PubMed:19535340, PubMed:<a

<http://www.uniprot.org/citations/23283301> target="_blank">23283301, PubMed:24121500, PubMed:24252090). Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues (PubMed:12186850, PubMed:12374852, PubMed:16788062, PubMed:18680753, PubMed:18794531, PubMed:23283301, PubMed:24121500, PubMed:24252090). Known targets include ACSS1, IDH, GDH, SOD2, PDHA1, LCAD, SDHA and the ATP synthase subunit ATP5PO (PubMed:16788062, PubMed:18680753, PubMed:19535340, PubMed:24121500, PubMed:24252090). Contributes to the regulation of the cellular energy metabolism (PubMed:24252090). Important for regulating tissue-specific ATP levels (PubMed:18794531). In response to metabolic stress, deacetylates transcription factor FOXO3 and recruits FOXO3 and mitochondrial RNA polymerase POLRMT to mtDNA to promote mtDNA transcription (PubMed:23283301). Acts as a regulator of ceramide metabolism by mediating deacetylation of ceramide synthases CERS1, CERS2 and CERS6, thereby increasing their activity and promoting mitochondrial ceramide accumulation (By similarity). Regulates hepatic lipogenesis. Uses NAD(+) substrate imported by SLC25A47, triggering downstream activation of PRKAA1/AMPK-alpha signaling cascade that ultimately downregulates sterol regulatory element-binding protein (SREBP) transcriptional activities and ATP-consuming lipogenesis to restore cellular energy balance.

Cellular Location

Mitochondrion matrix

Tissue Location

Widely expressed.

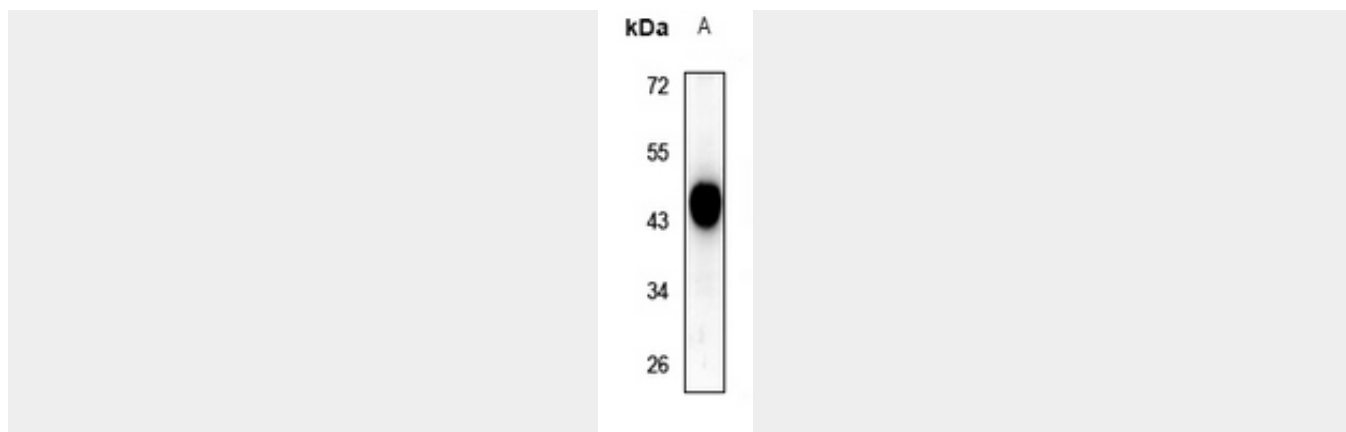
Anti-SIRT3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-SIRT3 Antibody - Images





Western blot analysis of SIRT3 expression in HCT116 (A) whole cell lysates.

Anti-SIRT3 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human SIRT3. The exact sequence is proprietary.