

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

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**Anti-SIRT3 Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">O9NTG7</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Calculated MW	<b>43573</b>

**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:&lt;a href="http://www.uniprot.org/citations/12186850" target="\_blank"&gt;12186850&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/12374852" target="\_blank"&gt;12374852&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/16788062" target="\_blank"&gt;16788062&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/18680753" target="\_blank"&gt;18680753&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/18794531" target="\_blank"&gt;18794531&lt;/a&gt;, PubMed:&lt;a href="http://www.uniprot.org/citations/19535340" target="\_blank"&gt;19535340&lt;/a&gt;, PubMed:&lt;a

<http://www.uniprot.org/citations/23283301> target="\_blank">23283301</a>, PubMed:<a href="http://www.uniprot.org/citations/24121500" target="\_blank">24121500</a>, PubMed:<a href="http://www.uniprot.org/citations/24252090" target="\_blank">24252090</a>). Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues (PubMed:<a href="http://www.uniprot.org/citations/12186850" target="\_blank">12186850</a>, PubMed:<a href="http://www.uniprot.org/citations/12374852" target="\_blank">12374852</a>, PubMed:<a href="http://www.uniprot.org/citations/16788062" target="\_blank">16788062</a>, PubMed:<a href="http://www.uniprot.org/citations/18680753" target="\_blank">18680753</a>, PubMed:<a href="http://www.uniprot.org/citations/18794531" target="\_blank">18794531</a>, PubMed:<a href="http://www.uniprot.org/citations/23283301" target="\_blank">23283301</a>, PubMed:<a href="http://www.uniprot.org/citations/24121500" target="\_blank">24121500</a>, PubMed:<a href="http://www.uniprot.org/citations/24252090" target="\_blank">24252090</a>). Known targets include ACSS1, IDH, GDH, SOD2, PDHA1, LCAD, SDHA and the ATP synthase subunit ATP5PO (PubMed:<a href="http://www.uniprot.org/citations/16788062" target="\_blank">16788062</a>, PubMed:<a href="http://www.uniprot.org/citations/18680753" target="\_blank">18680753</a>, PubMed:<a href="http://www.uniprot.org/citations/19535340" target="\_blank">19535340</a>, PubMed:<a href="http://www.uniprot.org/citations/24121500" target="\_blank">24121500</a>, PubMed:<a href="http://www.uniprot.org/citations/24252090" target="\_blank">24252090</a>). Contributes to the regulation of the cellular energy metabolism (PubMed:<a href="http://www.uniprot.org/citations/24252090" target="\_blank">24252090</a>). Important for regulating tissue-specific ATP levels (PubMed:<a href="http://www.uniprot.org/citations/18794531" target="\_blank">18794531</a>). In response to metabolic stress, deacetylates transcription factor FOXO3 and recruits FOXO3 and mitochondrial RNA polymerase POLRMT to mtDNA to promote mtDNA transcription (PubMed:<a href="http://www.uniprot.org/citations/23283301" target="\_blank">23283301</a>). 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

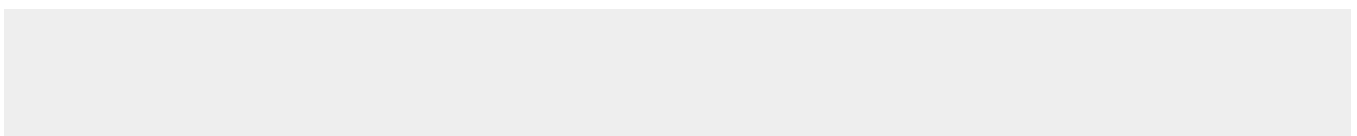
Widely expressed.

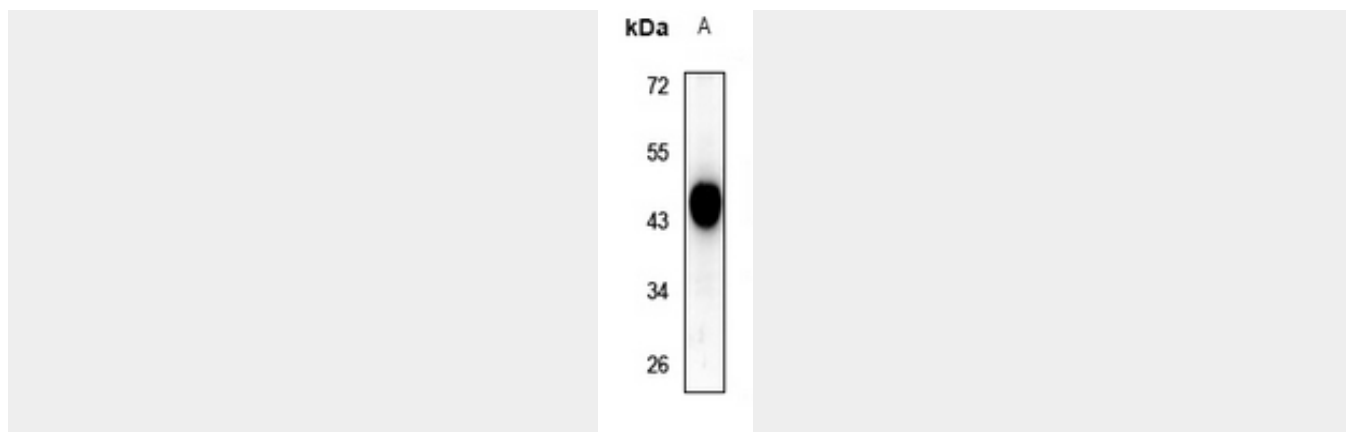
### Anti-SIRT3 Antibody - Protocols

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.