

SIRT5 Antibody

Rabbit mAb Catalog # AP90919

# Specification

# SIRT5 Antibody - Product Information

ApplicationWBPrimary AccessionO9NXA8ClonalityMonoclonalOther NamesSIR2-like protein 5; SIR2L5; Sirt5; Sirtuin 5; Sirtuin type 5;

Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	33881 Da

# SIRT5 Antibody - Additional Information

Dilution Purification Immunogen	WB~~1:1000 Affinity-chromatography A synthesized peptide derived from human SIRT5
Description	The Silent Information Regulator (SIR2) family of genes is a highly conserved group of genes that encode nicotinamide adenine dinucleotide (NAD)-dependent protein deacetylases, also known as Class III histone deacetylases. SirT5, a mammalian homolog of Sir2, is localized to the mitochondria and has been implicated in the regulation of cell metabolism.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

# SIRT5 Antibody - Protein Information

Name SIRT5 {ECO:0000255|HAMAP-Rule:MF\_03160}

Synonyms SIR2L5

### Function

NAD-dependent lysine demalonylase, desuccinylase and deglutarylase that specifically removes malonyl, succinyl and glutaryl groups on target proteins (PubMed:<a href="http://www.uniprot.org/citations/21908771" target="\_blank">21908771</a>, PubMed:<a href="http://www.uniprot.org/citations/22076378" target="\_blank">22076378</a>, PubMed:<a href="http://www.uniprot.org/citations/24703693" target="\_blank">24703693</a>, PubMed:<a



href="http://www.uniprot.org/citations/29180469" target="\_blank">29180469</a>). Activates CPS1 and contributes to the regulation of blood ammonia levels during prolonged fasting: acts by mediating desuccinylation and deglutarylation of CPS1, thereby increasing CPS1 activity in response to elevated NAD levels during fasting (PubMed:<a

href="http://www.uniprot.org/citations/22076378" target="\_blank">22076378</a>, PubMed:<a href="http://www.uniprot.org/citations/24703693" target="\_blank">24703693</a>). Activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species (PubMed:<a href="http://www.uniprot.org/citations/24140062" target="\_blank">24140062</a>). Activates SHMT2 by mediating its desuccinylation (PubMed:<a

href="http://www.uniprot.org/citations/29180469" target="\_blank">29180469</a>). Modulates ketogenesis through the desuccinylation and activation of HMGCS2 (By similarity). Has weak NAD-dependent protein deacetylase activity; however this activity may not be physiologically relevant in vivo. Can deacetylate cytochrome c (CYCS) and a number of other proteins in vitro such as UOX.

### **Cellular Location**

Mitochondrion matrix. Mitochondrion intermembrane space. Cytoplasm, cytosol. Nucleus. Note=Mainly mitochondrial. Also present extramitochondrially, with a fraction present in the cytosol and very small amounts also detected in the nucleus [Isoform 2]: Mitochondrion {ECO:0000255|HAMAP- Rule:MF\_03160, ECO:0000269|PubMed:21143562}

Tissue Location Widely expressed..

### SIRT5 Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SIRT5 Antibody - Images





Western blot analysis of SIRT5 expression in HeLa cell lysate.