

**SIRT5 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6244A****Specification**

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**SIRT5 Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">Q9NXA8</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33881
Antigen Region	263-292

**SIRT5 Antibody (C-term) - Additional Information****Gene ID** 23408**Other Names**

NAD-dependent protein deacylase sirtuin-5, mitochondrial  
{ECO:0000255|HAMAP-Rule:MF\_03160}, 351- {ECO:0000255|HAMAP-Rule:MF\_03160}, Regulatory  
protein SIR2 homolog 5 {ECO:0000255|HAMAP-Rule:MF\_03160}, SIR2-like protein 5  
{ECO:0000255|HAMAP-Rule:MF\_03160}, SIRT5 {ECO:0000255|HAMAP-Rule:MF\_03160}, SIR2L5

**Target/Specificity**

This SIRT5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 263-292 amino acids from the C-terminal region of human SIRT5.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100  
E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SIRT5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**SIRT5 Antibody (C-term) - 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:[21908771](#), PubMed:[22076378](#), PubMed:[24703693](#), PubMed:[29180469](#)). 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:[22076378](#), PubMed:[24703693](#)). Activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species (PubMed:[24140062](#)). Activates SHMT2 by mediating its desuccinylation (PubMed:[29180469](#)). 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**

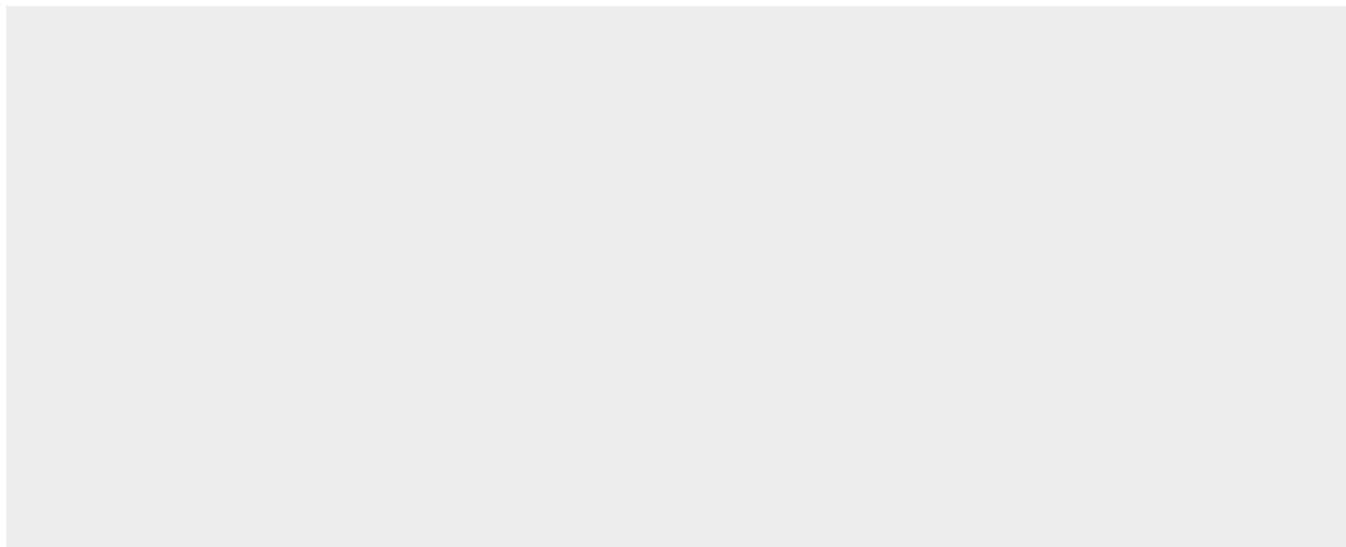
Widely expressed..

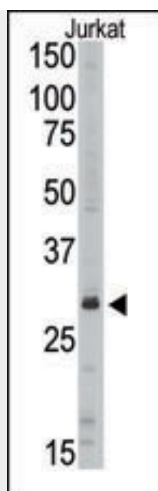
**SIRT5 Antibody (C-term) - Protocols**

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

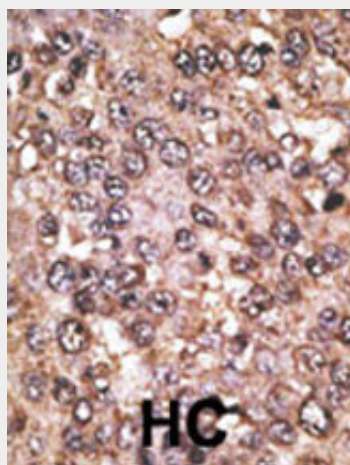
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**SIRT5 Antibody (C-term) - Images**





Western blot analysis of anti-SIRT5 Pab (Cat. #AP6244a) in Jurkat cell line lysate (35ug/lane). SIRT5 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **SIRT5 Antibody (C-term) - Background**

SIRT5 is a member of the sirtuin family of proteins, homologs to the yeast Sir2 protein. Members of the sirtuin family are characterized by a sirtuin core domain and grouped into four classes. The functions of human sirtuins have not yet been determined; however, yeast sirtuin proteins are known to regulate epigenetic gene silencing and suppress recombination of rDNA. Studies suggest that the human sirtuins may function as intracellular regulatory proteins with mono-ADP-ribosyltransferase activity.

#### **SIRT5 Antibody (C-term) - References**

Frye, R.A., Biochem. Biophys. Res. Commun. 273(2):793-798 (2000).  
Frye, R.A., Biochem. Biophys. Res. Commun. 260(1):273-279 (1999).