

SIRT5 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14574C**Specification**

SIRT5 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O9NXA8
Other Accession	O96S44 , NP_036373.1 , NP_112534.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33881
Antigen Region	99-127

SIRT5 Antibody (Center) - 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 99-127 amino acids from the Central region of human SIRT5.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

SIRT5 Antibody (Center) - 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

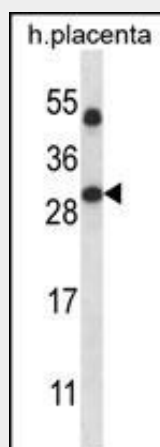
Widely expressed..

SIRT5 Antibody (Center) - Protocols

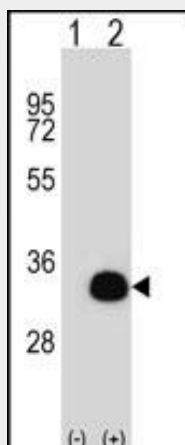
Provided below are standard protocols that you may find useful for product applications.

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

SIRT5 Antibody (Center) - Images



SIRT5 Antibody (Center) (Cat. #AP14574c) western blot analysis in human placenta tissue lysates (35ug/lane). This demonstrates the SIRT5 antibody detected the SIRT5 protein (arrow).



Western blot analysis of SIRT5 (arrow) using rabbit polyclonal SIRT5 Antibody (Center) (Cat. #AP14574c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the SIRT5 gene.

SIRT5 Antibody (Center) - Background

This gene encodes 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. The protein encoded by this gene is included in class III of the sirtuin family. Alternative splicing of this gene results in multiple transcript variants.

SIRT5 Antibody (Center) - References

Schlicker, C., et al. J. Mol. Biol. 382(3):790-801(2008)
Yamamoto, H., et al. Mol. Endocrinol. 21(8):1745-1755(2007)
Chowdari, K.V., et al. Genes Brain Behav. 6(3):229-239(2007)
Mahlknecht, U., et al. Cytogenet. Genome Res. 112 (3-4), 208-212 (2006) :
Michishita, E., et al. Mol. Biol. Cell 16(10):4623-4635(2005)