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SIRT5 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6244A

Specification

SIRT5 Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q9NXA8
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

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}

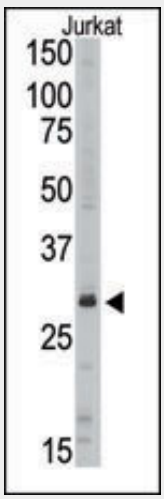
Tissue Location
Widely expressed..

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 Cytomety
- Cell Culture

SIRT5 Antibody (C-term) - Images



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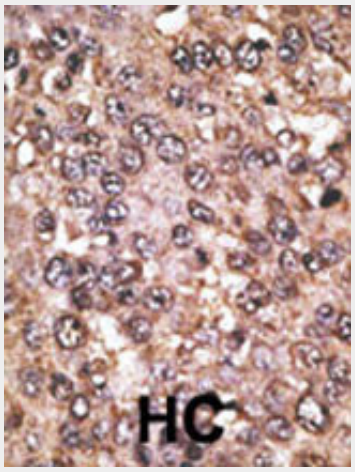
Western blot analysis of anti-SIRT5 Pab (Cat. #AP6244a) in Jurkat cell line lysate (35ug/lane). SIRT5(arrow) was detected using the purified Pab.



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).