

SIRT5 / Sirtuin 5 Antibody (aa30-46)
Rabbit Polyclonal Antibody
Catalog # ALS12102

Specification

SIRT5 / Sirtuin 5 Antibody (aa30-46) - Product Information

Application	IHC
Primary Accession	O9NXA8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34kDa KDa

SIRT5 / Sirtuin 5 Antibody (aa30-46) - Additional Information

Gene ID 23408

Other Names

NAD-dependent protein deacylase sirtuin-5, mitochondrial {ECO:0000255|HAMAP-Rule:MF_03160}, 3.5.1.- {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

A synthetic peptide corresponding to amino acids 30-46 of human SIRT5 was used as immunogen.

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

SIRT5 / Sirtuin 5 Antibody (aa30-46) is for research use only and not for use in diagnostic or therapeutic procedures.

SIRT5 / Sirtuin 5 Antibody (aa30-46) - 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

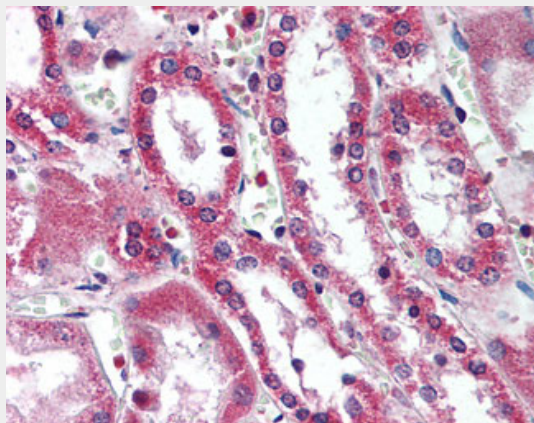
Widely expressed..

SIRT5 / Sirtuin 5 Antibody (aa30-46) - 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 / Sirtuin 5 Antibody (aa30-46) - Images



Anti-SIRT5 antibody IHC of human kidney.

SIRT5 / Sirtuin 5 Antibody (aa30-46) - Background

NAD-dependent lysine demalonylase and desuccinylase that specifically removes malonyl and

succinyl groups on target proteins. Activates CPS1 and contributes to the regulation of blood ammonia levels during prolonged fasting: acts by mediating desuccinylation of CPS1, thereby increasing CPS1 activity in response to elevated NAD levels during fasting. Activates SOD1 by mediating its desuccinylation, leading to reduced reactive oxygen species. 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.

SIRT5 / Sirtuin 5 Antibody (aa30-46) - References

- Frye R.A., et al. *Biochem. Biophys. Res. Commun.* 260:273-279(1999).
Ota T., et al. *Nat. Genet.* 36:40-45(2004).
Bechtel S., et al. *BMC Genomics* 8:399-399(2007).
Mungall A.J., et al. *Nature* 425:805-811(2003).
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.