

SIRT5 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP14574c**Specification**

SIRT5 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q9NXA8](#)**SIRT5 Antibody (Center) Blocking Peptide - 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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SIRT5 Antibody (Center) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

SIRT5 Antibody (Center) Blocking Peptide - Images

SIRT5 Antibody (Center) Blocking Peptide - 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) Blocking Peptide - 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)