10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Specification

SIRT5 Antibody (Center) Blocking Peptide - Product Information

Primary 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 ofproteins, homologs to the yeast Sir2 protein. Members of thesirtuin family are characterized by a sirtuin core domain andgrouped into four classes. The functions of human sirtuins have notyet been determined; however, yeast sirtuin proteins are known toregulate epigenetic gene silencing and suppress recombination ofrDNA. Studies suggest that the human sirtuins may function asintracellular regulatory proteins with mono-ADP-ribosyltransferaseactivity. The protein encoded by this gene is included in class IIIof the sirtuin family. Alternative splicing of this gene results inmultiple 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)