

Peptide-affinity purified goat antibody
Catalog # AF2462a

SIRT3 Antibody (C-Term) - Product Information

Application	WB
Primary Accession	Q9NTG7
Other Accession	NP_036371.1 , NP_001017524.1 , 23410
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	43573

SIRT3 Antibody (C-Term) - Additional Information

Gene ID 23410

Other Names

NAD-dependent protein deacetylase sirtuin-3, mitochondrial, hSIRT3, 3.5.1.-, Regulatory protein
SIR2 homolog 3, SIR2-like protein 3, SIRT3, SIR2L3

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SIRT3 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

SIRT3 Antibody (C-Term) - Protein Information

Name SIRT3

Synonyms SIR2L3

Function

NAD-dependent protein deacetylase (PubMed:12186850, PubMed:12374852, PubMed:16788062, PubMed:18680753, PubMed:18680753)

<http://www.uniprot.org/citations/18794531> target="_blank">18794531, PubMed:23283301, PubMed:24121500, PubMed:24252090, PubMed:19535340). Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues (PubMed:12186850, PubMed:12374852, PubMed:16788062, PubMed:18680753, PubMed:18794531, PubMed:23283301, PubMed:24121500, PubMed:24252090). Known targets include ACSS1, IDH, GDH, SOD2, PDHA1, LCAD, SDHA and the ATP synthase subunit ATP5PO (PubMed:16788062, PubMed:18680753, PubMed:24121500, PubMed:24252090, PubMed:19535340). Contributes to the regulation of the cellular energy metabolism (PubMed:24252090). Important for regulating tissue-specific ATP levels (PubMed:18794531). In response to metabolic stress, deacetylates transcription factor FOXO3 and recruits FOXO3 and mitochondrial RNA polymerase POLRMT to mtDNA to promote mtDNA transcription (PubMed:23283301). Acts as a regulator of ceramide metabolism by mediating deacetylation of ceramide synthases CERS1, CERS2 and CERS6, thereby increasing their activity and promoting mitochondrial ceramide accumulation (By similarity). Regulates hepatic lipogenesis. Uses NAD(+) substrate imported by SLC25A47, triggering downstream activation of PRKAA1/AMPK-alpha signaling cascade that ultimately downregulates sterol regulatory element-binding protein (SREBP) transcriptional activities and ATP-consuming lipogenesis to restore cellular energy balance.

Cellular Location

Mitochondrion matrix

Tissue Location

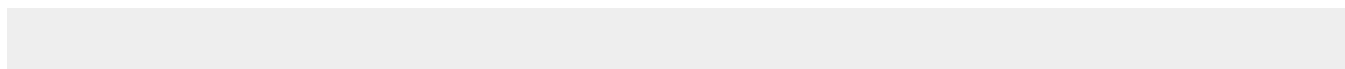
Widely expressed.

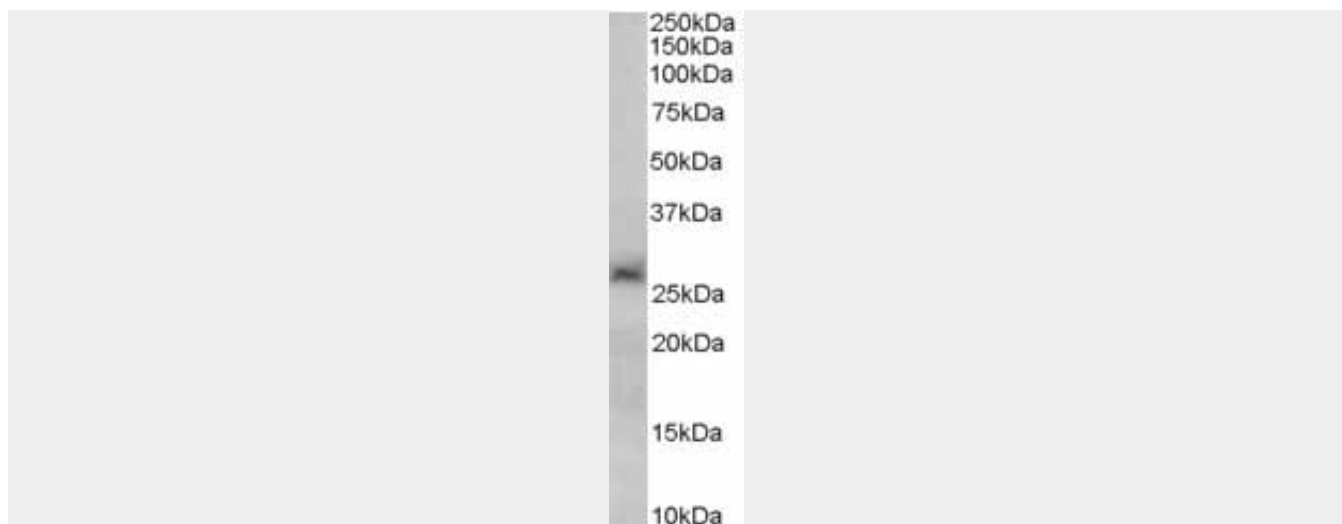
SIRT3 Antibody (C-Term) - Protocols

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

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

SIRT3 Antibody (C-Term) - Images





AF2462a (0.2 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

SIRT3 Antibody (C-Term) - Background

This antibody is expected to recognize both reported isoforms (NP_036371.1 and NP_001017524.1).

SIRT3 Antibody (C-Term) - References

SIRT3, a mitochondrial Sirtuin deacetylase, regulates mitochondrial function and thermogenesis in Brown adipocytes. Shi T, Wang F, Stieren E, Tong Q. J Biol Chem. 2005 Jan 14; [Epub ahead of print] PMID: 15653680