

Sirtuin 4 Active Protein | SIRT4 active protein

Active Sirtuin 4 (SIRT4)

CATALOG #
AAA150139

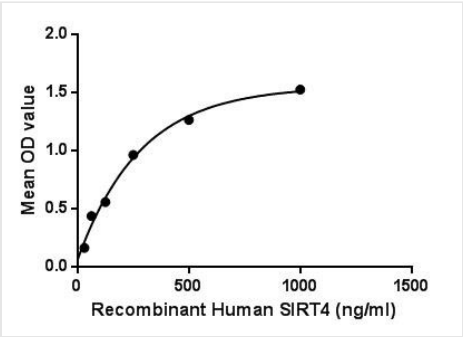
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Sirtuin 4; Active Sirtuin 4 (SIRT4); SIR2L4; Silent Mating Type Information Regulation 2 Homolog 4; SIR2-like protein 4; NAD-dependent protein deacetylase sirtuin-4; SIRT4 active protein

PRODUCT SPECIFICATIONS

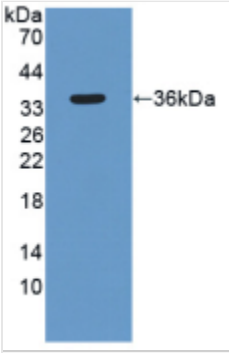
Purity/Purification	>97%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Ser28~Cys314
Sequence Length	335
Applicable Applications for SIRT4 active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	8.8
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



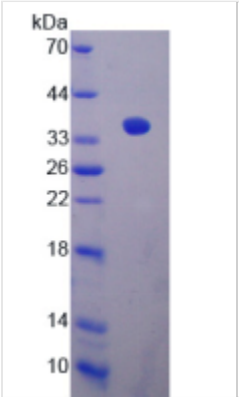
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PDGDVFLSEE QVRSFQVPTC VQCGHLLKPD VVFFGDTVNP DKVDFVHKRV
KEADSLLVVG SSLQVYSGYR FILTAWKKL PIALINIGPT RSDDLACLKL
NSRCGELLPL IDPC
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Gene Sequencing
Figure. Gene Sequencing (Extract)

Bioactivity
Sirtuin 4, also known as SIRT4, is a member of the sirtuin family. SIRT4 is a mitochondrial ADP-ribosyltransferase that inhibits mitochondrial glutamate dehydrogenase 1 activity, thereby downregulating insulin secretion in response to amino acids. It has been shown that SIRT4 regulates fatty acid oxidation and mitochondrial gene expression in liver and muscle cells. Besides, Heat Shock 60kD Protein 1, Chaperonin (HSPD1) has been identified as an interactor of SIRT4, thus a binding ELISA assay was conducted to detect the interaction of recombinant human SIRT4 and recombinant human HSPD1. Briefly, SIRT4 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100L were then transferred to HSPD1-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-SIRT4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of SIRT4 and HSPD1 was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of SIRT4 with HSPD1



WB (Western Blot)
Figure. Western Blot



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for SIRT4 active protein	Signal transduction
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NCBI AND UNIPROT INFORMATION

NCBI GI #	119618588
NCBI GeneID	23409
UniProt Accession #	Q9Y6E7
Molecular Weight	Predicted Molecular Mass: 35.9kDa Accurate Molecular Mass: 36kDa
NCBI Official Full Name	sirtuin (silent mating type information regulation 2 homolog) 4 (S. cerevisiae), isoform CRA_a
NCBI Official Synonym Full Names	sirtuin 4

NCBI Official Symbol	SIRT4
NCBI Official Synonym Symbols	SIR2L4
NCBI Protein Information	NAD-dependent protein lipoamidase sirtuin-4, mitochondrial
UniProt Protein Name	NAD-dependent protein deacetylase sirtuin-4
UniProt Gene Name	SIRT4
UniProt Entry Name	SIR4_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/sirt4-active-protein/sirtuin-4/150139>