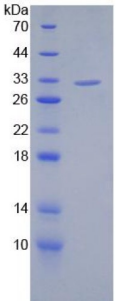
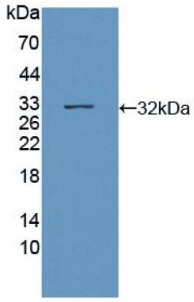
Human NAD-Dependent Protein Deacetylase Sirtuin-3, Mitochondrial (SIRT3) Protein (Active)

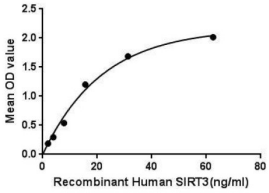
Catalogue No.:abx655827



SDS-PAGE analysis of active recombinant Human SIRT3.



Western blot analysis of recombinant Human SIRT3, using Rabbit Anti-Human SIRT3 antibody (abx100645



Binding activity of SIRT3 with IDH2. Please see the Biological Activity section for further information.

Human NAD-Dependent Protein Deacetylase Sirtuin-3, Mitochondrial (SIRT3) Protein (Active) is an Active Recombinant Human protein.

Target:	NAD-Dependent Protein Deacetylase Sirtuin-3, Mitochondrial (SIRT3)
Research Area:	Signal Transduction
Origin:	Human
Expression:	Recombinant
Tested Applications:	WB, SDS-PAGE
Host:	E. coli

Abbexa LTD, Cambridge, UK · Phone: +44 (0) 1223 755950 · Fax: +44 (0) 1223 755951
Abbexa LLC, Houston, TX USA · Phone: +1 832 327 7413
Abbexa BV, Leiden, NL
Website: www.abbexa.com · Email: info@abbexa.com

Conjugation:	Unconjugated
Form:	Lyophilized
Purity:	> 92%
Reconstitution:	Reconstitute in ddH_2O to a concentration of 0.1-1.0 mg/ml. Do not vortex.
Storage:	Store at 2-8 °C for up to one month. Store at -80 °C for up to one year. Avoid repeated freeze/thaw cycles.
UniProt Primary AC:	Q9NTG7 (UniProt, ExPASy)
Gene Symbol:	SIRT3
GeneID:	23410
KEGG:	hsa:23410
String:	9606.ENSP00000372191
Molecular Weight:	Calculated MW: 31.7 kDa Observed MW (SDS-PAGE): 32 kDa
Sequence Fragment:	Gln126-Lys399
Sequence:	QDVAE LIRARACQRV VVMVGAGIST PSGIPDFRSP GSGLYSNLQQ YDLPYPEAIF ELPFFFHNPK PFFTLAKELY PGNYKPNVTH YFLRLLHDKG LLLRLYTQNI DGLERVSGIP ASKLVEAHGT FASATCTVCQ RPFPGEDIRA DVMADRVPRC PVCTGVVKPD IVFFGEPLPQ RFLLHVVDFP MADLLLILGT SLEVEPFASL TEAVRSSVPR LLINRDLVGP LAWHPRSRDV AQLGDVVHGV ESLVELLGWT EEMRDLVQRE TGKLDGPDK
Tag:	N-terminal His tag
Buffer:	Prior to lyophilization: 100 mM $NaHCO_3$, 500 mM NaCl, pH 8.3, containing 0.01% sarcosyl, 5% trehalose.
Activity:	Active

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Website: www.abbexa.com · Email: info@abbexa.com

Biological Activity: Sirtuin 3 (SIRT3), an NAD-dependent deacetylase, is a member of the mammalian sirtuin family of proteins. In humans, sirtuins have a range of molecular functions and have emerged as important proteins in ageing, stress resistance and metabolic regulation. It also can regulate epigenetic gene silencing and suppress recombination of rDNA in yeast. SIRT3 is expressed in white and brown adipose tissue. Isocitrate Dehydrogenase 2, mitochondrial (IDH2) has been identified as an interactor of SIRT3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human SIRT3 and recombinant human IDH2. Briefly, SIRT3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to IDH2-coated microplate wells and incubated for 2 h at 37°C. Wells were washed with PBST and incubated for 1 h with anti-SIRT3 polyclonal antibody, then aspirated and washed 3 times. After incubation with HRP-conjugated secondary antibody, wells were aspirated and washed 3 times. TMB substrate solution was added and wells were incubated for 15-25 minutes at 37 °C. Finally, 50 µl stop solution was added to the wells and the absorbance was read at 450 nm immediately. The binding activity of SIRT3 and IDH2 is shown in Figure 3.

Concentration: Prior to lyophilization: 200 µg/ml

Note: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION.

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