

Active Sirtuin 4 (SIRT4) Instruction Manual

SBPE321Hu01

Homo sapiens (Human)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

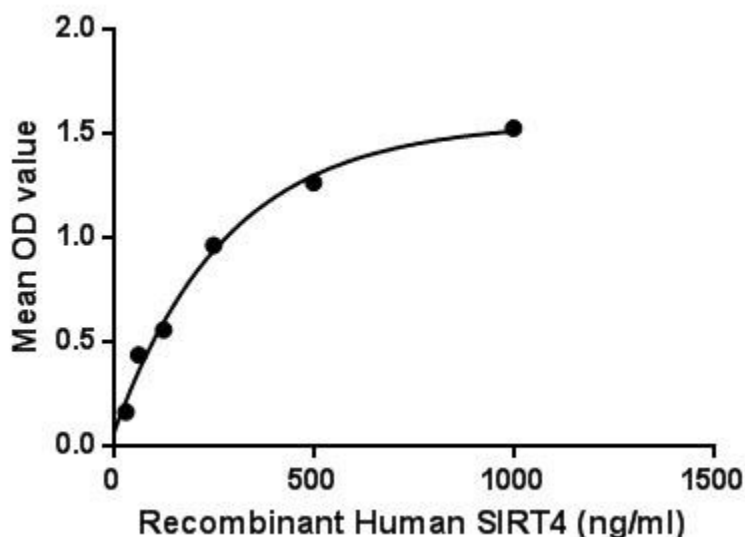
Isoelectric Point

8.8

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



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 100 μ L were then transferred to HSPD1-coated microtiter wells and incubated for 2h at 37°C. 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°C. Finally, add 50µL 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

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

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°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.

Image

Figure. Gene Sequencing (Extract)

Image

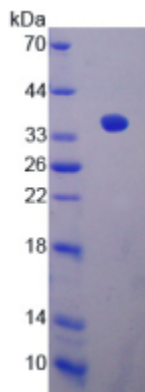


Figure. SDS-PAGE

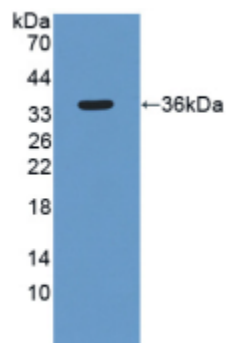


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.