

Active Histone Deacetylase 1 (HDAC1) Instruction Manual

SBPC299Hu01

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

> 95%

Isoelectric Point

5.3

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

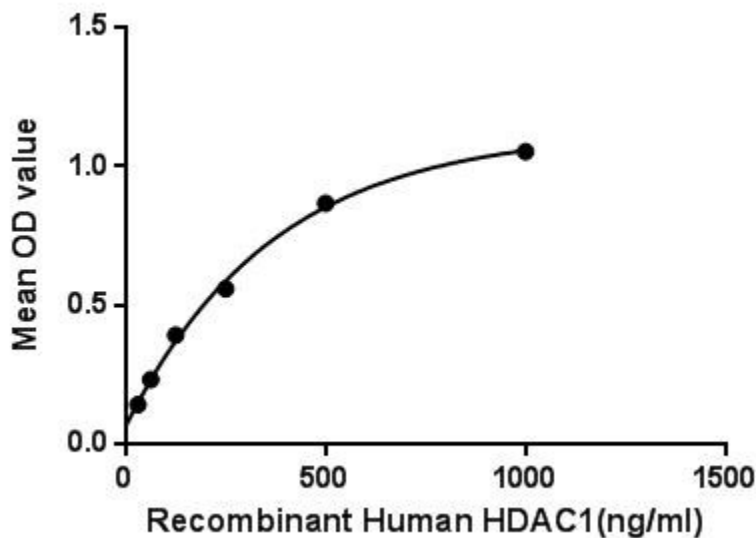


Figure. The binding activity of HDAC1 with Sp1.

Histone deacetylase 1 (HDAC1) is an enzyme which belongs to the histone deacetylase/acuc/apha family and is a component of the histone deacetylase complex. Histone acetylation and deacetylation, catalyzed by multisubunit complexes, play a key role in the regulation of eukaryotic gene expression. HDAC1 also interacts with retinoblastoma tumor-suppressor protein and this complex is a key element in the control of cell proliferation and differentiation. Besides, Specificity Protein 1 (Sp1) has been identified as an interactor of HDAC1, thus a binding ELISA assay was conducted to detect the interaction of recombinant human HDAC1 and recombinant human Sp1. Briefly, HDAC1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate

samples of 100uL were then transferred to Sp1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-HDAC1 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 HDAC1 and Sp1 was shown in Figure 1, and this effect was in a dose dependent manner.

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

ATGGGCGCAGCGCAGGGCCACCGGACGGAGCTGTGTTACTATGCGACGGGAGGTTGGAAATATATATGCGACAGGCGCCGAAATGAAAGCTCAGCGAATCGGCAATGACTATATTTGCTGCACTATGGCTCTATCGAATAATGGAAATCGAATCTATCGCCCTCAAAAGCCAAATGCTGAGGAGTGAACAGTACCGACAGCA
M A Q T Q G T R R K V C Y Y Y D G D V G N Y Y Y G Q G H P H K P H R I R M T H N L L N Y G L Y R K M E I Y R P H K A N A E E M T K Y H S D

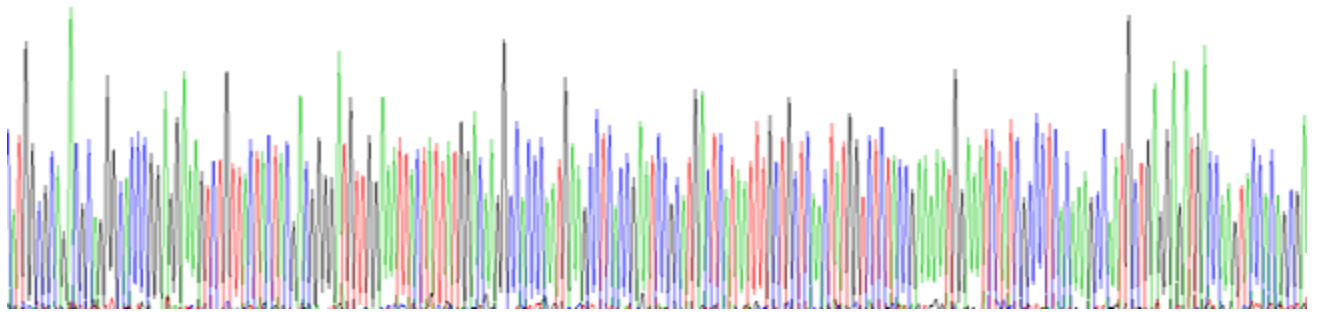


Figure. Gene Sequencing (Extract)

Image

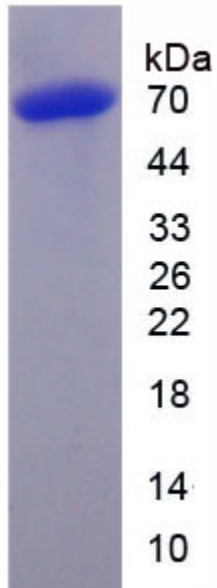


Figure. SDS-PAGE

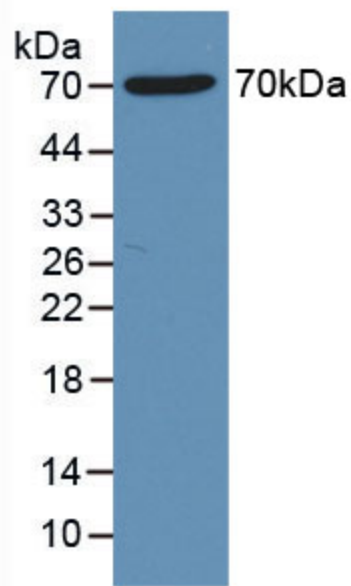


Figure. Western Blot

[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.