

Histone Deacetylase 1 (HDAC1) Active Protein | HDAC1 active protein

Active Histone Deacetylase 1 (HDAC1)

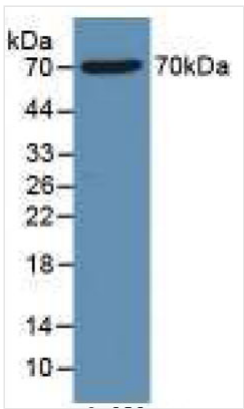
CATALOG # AAA149259	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Histone Deacetylase 1 (HDAC1); Active Histone Deacetylase 1 (HDAC1); HDAC1 active protein

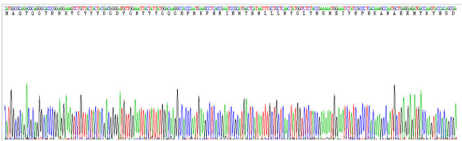
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>95%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl and 5% trehalose.
Concentration	Original Concentration: 80ug/mL (varies by lot)
Applicable Applications for HDAC1 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Met1~Ala482
Tags	N-terminal His-tag
Predicted isoelectric point	5.3
Phenomenon explanation	The possible reasons that the actual band size differs from the predicted are as follows: 1. Splice variants: Alternative splicing may create different sized proteins from the same gene. 2. Relative charge: The composition of amino acids may affects the charge of the protein. 3. Post-translational modification: Phosphorylation, glycosylation, methylation etc. 4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form. 5. Polymerization of the target protein: Dimerization, multimerization etc.
Usage	Reconstitute in ddH2O to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: 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.



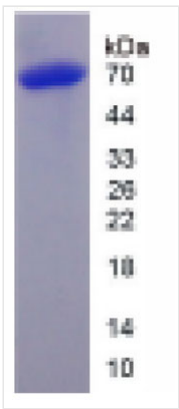
WB (Western Blot)

Sample: Recombinant HDAC1, Human;Antibody: Rabbit Anti-Human HDAC1 Ab



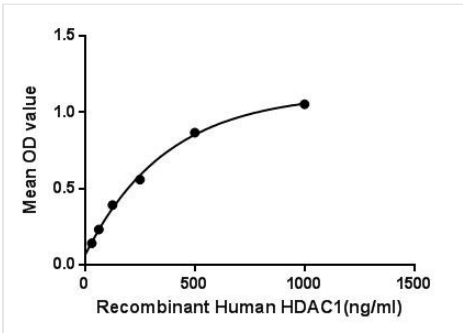
Gene Sequencing

Gene Sequencing (extract)



SDS_PAGE

Sample: Active recombinant HDAC1, Human



Bioactivity

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 degree 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 degree C. Finally, add 50uL 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.

MAQTGTRRK VCYYYDGDVG NYYYGQGHM KPHRIMTHN LLLNYGLYRK
MEIYRPHKAN AEEMTKYHSD DYIKFLRSIR PDNMSEYSKQ MORFNVGEDC
PVFDGLFEFC QLSTGGSVAS AVKLNKQOTD IAVNWAGGLH HAKKSEASGF
CYVNDIVLAI LELLKYHQRV LYIDIDIHHG DGVEEAFYTT DRVMTVSFHK
YGEYFPGTGD LRDIGAGKKG YYAVNYPLRD GIDDESVEAI FKPVMSKVME
MFQPSAVVLQ CGSDSLSGDR LGCNLTIKG HAKCVEFVKS FNLPMMLGG
GGYTIRNVAR CWTYETAVAL DTEIPNELPY NDYFEYFGPD FKLHISPSNM
TNQNTNEYLE KIKQLFENL RMLPHAPGVQ MQAIPEDAIP EESGDEDED
PDKRISICSS DKRIACEEF SDSEEEGEGG RKNSSNFKKA KRVKTEDEKE
KDPEEKKEVT EEEKTKKEEP EAKGVKEEVK LA

Sequence

ADDITIONAL INFORMATION

Product Categories/Family for HDAC1 active protein	Enzyme & Kinase
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NCBI AND UNIPROT INFORMATION

NCBI GI #	13128860
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NCBI GeneID	3065
NCBI Accession #	NP_004955.2
NCBI GenBank Nucleotide #	NM_004964.3
UniProt Accession #	Q13547
Molecular Weight	Predicted Molecular Mass: 58.8kDa Accurate Molecular Mass: 70kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	histone deacetylase 1
NCBI Official Synonym Full Names	histone deacetylase 1
NCBI Official Symbol	HDAC1
NCBI Official Synonym Symbols	HD1; RPD3; KDAC1; GON-10; RPD3L1
NCBI Protein Information	histone deacetylase 1
UniProt Protein Name	Histone deacetylase 1
UniProt Gene Name	HDAC1
UniProt Synonym Gene Names	RPD3L1; HD1
UniProt Entry Name	HDAC1_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/e-coli-homo-sapiens-human-active-protein/histone-deacetylase-1-hdac1/149259>