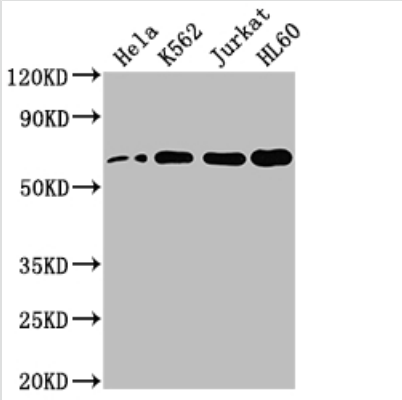
HDAC1 Antibody

Product Code	CSB-RA299884A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q13547
Immunogen	A synthesized peptide derived from human HDAC1
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Deacetylates SP proteins, SP1 and SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated transcription in resting neurons. Upon calcium stimulation, HDAC1 is released from the complex and CREBBP is recruited, which facilitates transcriptional activation. Deacetylates TSHZ3 and regulates its transcriptional repressor activity. Deacetylates 'Lys-310' in RELA and thereby inhibits the transcriptional activity of NF-kappa-B. Deacetylates NR1D2 and abrogates the effect of KAT5-mediated relieving of NR1D2 transcription repression activity. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Involved in CIART-mediated transcriptional repression of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex or CRY1 through histone deacetylation.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Isotype/Loading Controls; Epigenetics and Nuclear Signaling; Cardiovascular; Stem cells
Gene Names	HDAC1

Accession NO. 10A1

Image



Western Blot
Positive WB detected in: Hela whole cell lysate, K562 whole cell lysate, Jurkat whole cell lysate, HL60 whole cell lysate
All lanes: HDAC1 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 56 kDa
Observed band size: 60 kDa

Description

HDAC1 serving as the catalytic subunit binds to other proteins such as Sin3, NuRD, and CoREST and then interacts with sequence-specific DNA-binding transcription factors, inhibiting transcription and cooperating with other chromatin modifiers to shape epigenetic programs. HDAC1-involving control of epigenetic modulation is crucial for normal development and tumor progression. Elevated expression of HDAC1 has been found in gastric, prostate, colon, and breast carcinomas. HDAC1 plays a crucial role in the progression of gastric cancer by facilitating the proliferation of cancer cells.

The main steps in the production of this HDAC1 recombinant antibody include immunization; harvest of positive spleen cells; obtaining the antibody sequence by screening and sequencing; expression of the target antibody in mammalian cells; purification. The HDAC1 antibody was produced recombinantly and has many advantages: high reproducibility, specificity and scalability. And has been validated in ELISA, WB.