

Product datasheet for **RN205681**

Hdac1 (NM_001025409) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hdac1 (NM_001025409) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Hdac1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >RN205681 representing NM_001025409
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGCAGACTCAGGGCACCAAGAGAAAGTCTGTTACTACTACGACGGGGATGTTGAAACTACTATT
 ATGGACAAGGCCACCCAATGAAGCCTCACCGAATCCGAATGACTCATAATTTGCTGCTCAACTATGGTCT
 CTACCGAAAAATGAAATCTATCGTCCTCACAAAGCCAACGCTGAGGAGATGACCAAGTACCACAGCGAC
 GACTACATCAAGTTCTTGCGTTCTATTCGCCAGACAATATGTCTGAATACAGCAAGCAGATGCAGAGAT
 TCAACGTGGGTGAGGACTGTCCGGTATTTGATGGCTTGTGGAGTTCTGTGAGTTGTCCACGGGTGGCTC
 TGTCCGAGTGTGTGAAACTCAATAAGCAGCAGACGGACATCGCTGTGAACTGGGCTGGGGCCTGCAC
 CATGCCAAGAAGTCTGAAGCATCCGGCTTCTGTTACGTCAATGATATTGCTTGGCCATCCTGGAAGTGC
 TAAAGTATCACCAGAGGGTGTGTATATTGACATTGACATTCACCATGGCGATGGCGTGAAGAGGCCTT
 CTATACCACAGACCGGGTATGACTGTGTCTTTTATAAATACGGAGAGTACTTCCAGGAACTGGGGAC
 CTACGGGATATTGGGGCTGGCAAAGCAAGTACTACGCCGTTAACTACCCACTGCAGATGGCATTGATG
 ATGAGTCTATGAAGCCATCTTTAAGCCAGTCATGTCCAAAGTAATGGAGATGTTCCAGCCTAGTGCACT
 GGTCTACAGTCCGGCTCAGACTCCCTGTCTGGGGATCGGCTAGGTTGCTTCAATCTGACCATCAAAGGA
 CATGCCAAGTGTGTGGAGTTCGTGAAGAGTTTCAACTGCGGATGCTAATGTTGGGAGGAGGTGGCTATA
 CCATCCGTAATGTCGCTCGGTGCTGGACTTACGAGACAGCTGTGGCCCTGGACACAGAGATCCCTAATGA
 GCTACCATACAATGACTACTTTGAATACTTTGGACCAGATTTCAAGCTTCACATCAGCCCTTCCAATATG
 ACTAACCAGAACACTAATGAATACCTGGAGAAGATCAAGCAGCGGCTCTTTGAGAACTTGAGAATGCTGC
 CCCATGCCCTGGGGTCCAAATGCAGGCCATCCCAGAGGATGCCATCCCAGAAGAGAGCGGTGATGAGGA
 TGAGGAAGACCCTGACAAACGAATTTCCATCTGCTCCTCTGACAAACGCATTGCCTGTGAGGAGGAATTC
 TCTGATTCTGATGAGGAGGAGAAGGAGGTGCGAAGAACTCTTCTAACTTCAAAAAGCCAAAAGAGTCA
 AAACAGAAGATGAAAAGAAAAGATCCCGAGGAGAAAAAAGAAGTACAGAAAGAGGAGAAAACCAAGGA
 GGAGAAGCCAGAAGCCAAAGGGTCAAAGAAGAGGTCAAGATGGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001025409
- Insert Size:** 1449 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq:	<u>NM_001025409.1, NP_001020580.1</u>
RefSeq Size:	2035 bp
RefSeq ORF:	1449 bp
Locus ID:	297893
UniProt ID:	<u>Q4QQW4</u>
Cytogenetics:	5q36
Gene Summary:	<p>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.[UniProtKB/Swiss-Prot Function]</p>