

## Product datasheet for **MR207727**

### **Hdac1 (NM\_008228) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Hdac1 (NM_008228) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hdac1
Synonyms:	HD1; Hdac1-ps; MommeD5; RPD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR207727 representing NM\_008228  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGCAGACTCAGGGACCAAGAGAAAGTCTGTTACTACTACGACGGGGATGTTGAAACTACTATT  
 ATGGACAAGGGCACCCCATGAAGCCTCACGAATCCGCATGACTACAATTTGCTGCTCAACTATGGTCT  
 CTACCGAAAAATGGAGATCTACCGTCTCACAAAGCCAATGCTGAGGAGATGACCAAGTACCACAGTGAT  
 GACTACATTAATTCCTGCGTCTATTGCGCCAGATAACATGTCTGAATACAGCAAGCAGATGCAGAGAT  
 TCAATGTTGGTGAGGACTGTCCGGTATTTGATGGCTTGTGTTGAGTTCTGTGAGTTGTCCACGGGAGGCTC  
 TGTCGCAAGTGTGAAGCTTAATAAGCAGCAGACGGACATCGTGTGAACTGGGCTGGGGCCTGCAC  
 CATGCAAAGAAGTCTGAAGCATCCGGCTTCTGTTACGTCAATGACATCGTCTTGGCCATCCTGGAAGTGC  
 TAAAGTACCACCAGGGGTGCTCTATATTGACATTGATATCACCATGGCGATGGCGTGAAGAGGCCTT  
 CTATACTACAGACCGGGTCACTGACTGTGCTCTTTCATAAATACGGAGAGTACTTCCAGGAACTGGGGAC  
 CTACGGGACATTGGGGCTGGCAAAGCAAGTACTATGCTGTGAACTACCCACTGCGAGACGGCATTGACG  
 ACGAATCCTATGAAGCCATCTTTAAGCCAGTCACTGTCCAAAGTAATGGAGATGTTCCAGCCTAGTGCAAGT  
 GGTCTTACAGTGTGGCTCAGATTCCTGTCTGGGACCGGTTAGGTTGCTTCAATCTGACCATCAAAGGA  
 CACGCCAAGTGTGTGGAGTTCGTGAAGAGTTTCAACTGCCCCATGCTGATGCTGGGAGGAGGTGGCTACA  
 CCATCCGGAATGTTGCTCGTGTGGACTTACGAAACAGCGGTGGCCCTGGACACAGAGATCCCTAATGA  
 GCTGCCCTACAATGACTACTTTGAATACTTTGGACCGATTTCAAGCTTACATCAGCCCTTCTAACATG  
 ACCAACCAAGAACTAACGAGTACCTGGAGAAGATCAAGCAGCGTCTCTTTGAGAACTTGAGGATGCTGC  
 CCCATGCCCTGGGGTCCAGATGCAGGCCATCCCTGAGGACGCCATCCCCGAAGAGAGTGGGGATGAAGA  
 TGAGGAGGACCCTGACAAACGCATCTCCATCTGCTCCTCTGATAAACGCATTGCCTGTGAGGAAGAGTTC  
 TCGGACTCAGATGAGGAGGAGAAGGTGGTCGCAAGAAGTCTTCTAACTTCAAAAAAGCCAAAAAGAGTTA  
 AAACAGAGGATGAGAAAGAGAAAGATCCTGAAGAGAAAAAAGAAGTACAGAAAGAAGAGAAAACCAAGGA  
 GGAGAAGCCAGAAGCCAAAGGGTCAAAGAAGAGGTCAAGTTGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR207727 representing NM\_008228  
 Red=Cloning site Green=Tags(s)

MAQTQGTKRKVCYYYDGDVGNYYYGQGHMPKPHRIRMTHNLLNYGLYRKMEIYRPHKANAEEMTKYHSD  
 DYIKFLRSIRPDNMSEYSKQMRFNVEDCPVFDGLFEFCQLSTGGSVASAVKLNKQQTDI AVNWAGGLH  
 HAKKSEASGFYVNDIVLAILELLKYHQRVLYIDIDIHHGDGVVEAFYTTDRVMTVSFHKYGEYFPGTGD  
 LRDIGAGKGYAVNYPLRDGIDDESIEAIFKPVMSKVMEMFQPSAVVLQCGSDSLSGDRLGCFNLTIKG  
 HAKCVEFVKSFNLPMLMLGGGYTIRNVARCWYETAVALDTEIPNELPYNDYFEYFGPDFKLHISPSNM  
 TNQNTNEYLEKIKQRLFENLRMLPHAPGVQMQAIPEDAIPESGDEDEEDPKRISICSSDKRIACEE  
 SDEEGEGGRKNSSNFKKAKRVKTEDEKEKDPEEKKEVTEEEKTKEEKPEAKGVKEEVKLA

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:**

NM\_008228

**ORF Size:**

1446 bp

**OTI Disclaimer:**

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:**

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

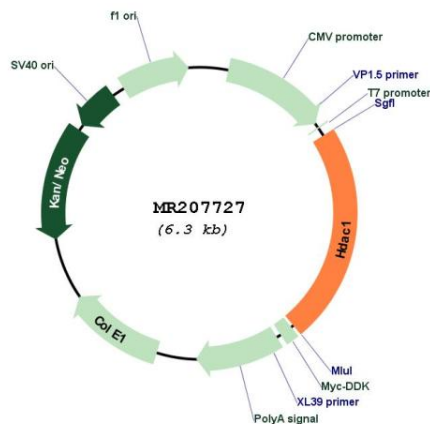
**Reconstitution Method:**

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:	<a href="#">NM_008228.1</a> , <a href="#">NM_008228.2</a> , <a href="#">NP_032254.1</a>
RefSeq Size:	1971 bp
RefSeq ORF:	1449 bp
Locus ID:	433759
UniProt ID:	<a href="#">O09106</a>
Cytogenetics:	4 63.26 cM
MW:	55.5 kDa

**Gene Summary:** 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]

### Product images:



Circular map for MR207727