

## Product datasheet for **MR231328**

### **Hdac7 (NM\_001204279) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Hdac7 (NM_001204279) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hdac7
Synonyms:	5830434K02Rik; HD7; HD7a; Hdac7a; mFLJ00062
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

**ORF Nucleotide Sequence:**

>MR231328 representing NM\_001204279  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACCTGCGGGTGGGCCAGCGCCACGGTGGAGCCCCACCAGACCTGCGCTGCTGACCTGCAAC  
 ACCCCCAACGCCTGCACCGCCATCTTCTTGGCAGGCTTACACCAGCAACAGCGCTCAGCCGAGCCAT  
 GAGGCTCTCCATGGACCCACCAATGCCGGAGCTGCAGGGGGACAGCAGGAGCAAGAACTTCGGCAACTT  
 CTCAATAAAGACAAGAGCAAGCGAAGTGCCGTAGCCAGCAGTGTGGTCAAGCAGAAGCTGGCTGAAGTGA  
 TCCTGAAGAAACAGCAGGCAGCCCTTGAGAGAACAGTCCATCCCAGCAGCCCCAGTATCCCTACAGCCT  
 GCCCACTGAACCCCGGAACACTTCCCTTGGCTAAAACAGTGTCTGAACCAACCTGAAGTTGCGCTAC  
 AAACCAAGAAATCCCTGGAGAGACGAAGAATCCCTGCTCAGGAAGGAGAGTGCCCGCCAGCCTTC  
 GGAGGAGCCTGCCGAGACCTTGGAGATTCTCCCCAGTAGTAGCAGCACACCCCGCTCAGGGTGCAG  
 CTCCTAATGACAGCGAGCATGGCCCTAACCTGCCCTAGGCTCAGAGGCTGATGGTGACCGCAGGACC  
 CATTCAACTTTAGGCCCTCGGGTCTGTACTGGGAACCCCATGCTCCCTCTTCTGCACCACGGTC  
 TGGAGCCAGAGGCTGGGGCACCTTACCCTCTCGCTGCAACCCATTCTCTGCTGGACCCCTCAGTCTC  
 TCATGCCCCACTGTGGACTGTGCCTGGCCCTTGGCCCTTCCACTTTGCCAGCCCTTACTGACC  
 ACCGAGCGGCTCTCTGGGTGAGGCTCCATCGACCACTTAACCGACCCGCTCAGAGCCCTGCCCCCA  
 GCGCCACAGCCTCCCCTGTCTGGCCCCCTGCAGCCCCGCCAGGATCGGCTCAAACCTCACGTCCAGCT  
 GATCAAGCCAGCCATCTCCCCTCCCAGAGGCTGCCAAGCCAGTGAGAAGCCCGACTGCGACAGATA  
 CCCTCGGCTGAGGACCTAGAGACAGATGGTGGGGAGTGGACCTATGGCGAATGATGGCCTGGAACATA  
 CCGAGCTCAGGCCGTGGCCCTCTGAGGGCAGAGGCTCCATTTCTCTGCAGCAGCATCAACAGTGCACCC  
 CTGGGAGCAGCAGCATCTAGCCGGCGGCTCTCTCAGGGAAGCCCGGGACTCCGTGCTGATACCTCTG  
 GCCCAGGTTGGACACCGCCCTGTCCAGAACCAGTCTTCCCAGCAGCACCTGTCTCCCTGCTGAGCC  
 CAGAGCCACCTGTGACACCAAGTCTCAACAGCTCAGAGACACCTGCTACAGGCTGGTCTATGACTC  
 GGTGATGCTGAAACACCAATGTTCTGTGGAGACAACAGCAAGCATCCCAGCATGCAGGCCGATCCAG  
 AGCATCTGGTCCCGCTGCAGGAACGGGTCTCCGCAGCCAGTGTGAGTGTCTCCAGGCCGAAAGGCTT  
 CCCTAGAGGAGCTGCAGTCACTCTGAACGGCACGTGCTCTCTACGGCACGAACCCACTCAGCCG  
 CCTCAAAGTGGATAACGGGAAGCTTACAGGACTCCTGGCACAGCGGACGTTTGTGATGCTACCCTGTGGC  
 GGGTTGGGTCGATACTGACACCATCTGGAACGAGCTGCATTCTCCAATGCAGCCGCTGGGCTGCGG  
 GCAGTGTACCGACCTTGCTTCAAAGTAGCTTCCCAGAGCTGAAGAATGGCTTTGCTGTGGTGCAGCC  
 CCCGGACACCATGCAGATCATTCTACAGCCATGGGCTTCTGCTTCTCAACTCCGTGGCCATCGCTGC  
 CGACAGCTACAGCAACACGGCAAAGCCAGCAAGATCCTCATTGTTGACTGGGATGTTACCATGGCAACG  
 GCACACAGCAGACTTTCTACCAGACCCAGTGTGCTCTACATTTCCCTTTCATCGCCATGACGACGGCAA  
 TTCTTCCCAGGCAGTGGGGCCGTGGATGAGGTGGAACTGGCAGTGGCGAGGGCTTCAATGTCAACGTG  
 GCTTGGGCTGGGGCTTGGATCCACCATGGGGATCCTGAGTACCTGGCTGCTTTCAGGATAGTGGTGA  
 TGCCATTGCCCGAGAGTTTGTCCAGACCTGGTCTGGTGTCTGCTGGGTTTGTGCTGCGGAGGGTCA  
 CCCAGCCCGCTGGGTGGCTACCATGTTTCTGCCAAATGTTTTGGGTACATGACGCAGCAGTTGATGAAC  
 TTGGCAGGAGGCCCGTGGTGTGGCCTTAGAGGGTGGACATGACCTCACGGCCATCTGTGATGCCTCGG  
 AGGCTGTGTAGCTGCTTCTGGGCAACAAGGTGGACCCCTTTCAGAAGAAAGCTGGAACAGAAACC  
 CAACCTCAGTGCCATCCGCTCGCTGGAAGCTGTGGTCAAGGTGCACAGGAAATACTGGGGCTGCATGCAG  
 CGCTTGGCCTCTGTCCAGACTCCTGGCTACCCAGAGTGCAGGAGCTGATGCAGAAGTGGAAAGCCGTGA  
 CCGCGCTGGCATCCCTTCTGTGGGCATCCTGGCTGAAGACAGGCCCTCGAGCGGCTGGTGAAGAGGA  
 AGAACCCATGAACCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231328 representing NM\_001204279  
 Red=Cloning site Green=Tags(s)

MDLRVGRPTVEPPPEPALLTLQHPQRLHRHLFLAGLHQQRSAEPMRLSMDPPMPELQGGQQEQELRQL  
 LNKDKSKRSVAVSSVVKQLAEVILKKQQAALERTVHPSSPSIPYSLPTEPPEHFPLRKTVSEPNLKLRY  
 KPCKSLERRKNPLLRKESAPPSLRRRPAETLGDSSPSSSTPASGCSSPNDSEHGPNPALGSEADGDRRT  
 HSTLGPGRPVLGPNHAPLFLHHGLEPEAGGTLPSRLQPIILLDPSVSHAPLWTVVPLGPLPFHFAQPLLT  
 TERLSGSLHRPLNRTRSEPLPSATASPLLAPLQPRQDRLKPHVQLIKPAISPPQRPAPKSEKPRLRQI  
 PSAEDLETGGGVGPMANDGLEHRESGRGPPEGRGSI SLQQHQVPPWEQQHLAGRLSQGSPGDSVLIPL  
 AQVGRHPLSRTQSSPAAPVSLLSPEPTCQTQVLSSETPATGLVYDSVMLKHQCSCGDNKHPHEAGRIQ  
 SIWSRLQERGLRSQCECLRGRKASLEELQSVHSEHVVLLYGTNPLSRLKLDNGKLTGLLAQRTFVMLPCG  
 GVGVDTDTIWNELHSSNAARWAAGSVTDLAFKVASRELKNGFAVVRPPGHHADHSTAMGFCFFNSVAIAC  
 RQLQQHGKASKILIVDWDVHHGNGTQQT FYQDPSVLYISLHRHDDGNFFPGSGAVDEVTGSGEGFNVNV  
 AWAGGLDPPMGDPEYLAAFRIIVMPIAREFAPDLVLSAGFAAEGHPAPLGGYHVS AKCFGYMTQQLMN  
 LAGGAVLALLEGHDLTAICDASEACVAALLGNKVDPLSEESWKQKPNLSAIRSLEAVVRVHRKYWGCMQ  
 RLASCPSWLPRVPGADAEVEAVTALASLSVGILAEDRPSERLVEEEPMNL

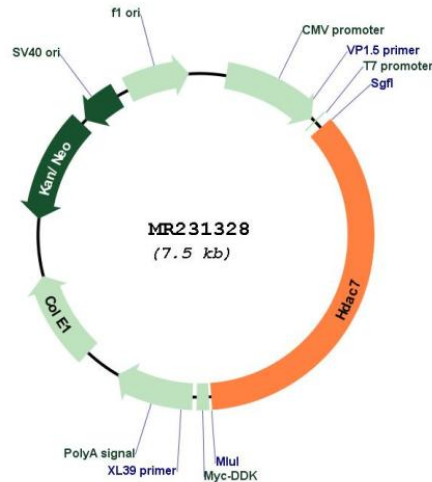
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001204279

**ORF Size:** 2676 bp

**OTI Disclaimer:** 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:** [NM\\_001204279.1](#), [NP\\_001191208.1](#)

**RefSeq Size:** 4156 bp

**RefSeq ORF:** 2679 bp

**Locus ID:** 56233

**Cytogenetics:** 15 F1

**MW:** 97 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. Involved in muscle maturation by repressing transcription of myocyte enhancer factors such as MEF2A, MEF2B and MEF2C. During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors. Positively regulates the transcriptional repressor activity of FOXP3 (By similarity). Serves as a corepressor of RARA, causing its deacetylation and inhibition of RARE DNA element binding (By similarity). In association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response (By similarity).[UniProtKB/Swiss-Prot Function]