

## Product datasheet for **MR231257**

### **Hdac7 (NM\_001204281) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Hdac7 (NM_001204281) 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



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**ORF Nucleotide Sequence:**

>MR231257 representing NM\_001204281  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGACCTGCGGGTGGGCCAGCGCCACGGTGGAGCCCCACCAGGCCTGCGTCTGACCCCTGCAAC  
 ACCCCCAACGCTGCACCGCCATCTTCTTGGCAGGCTTACACCAGCAACAGCGCTCAGCCGAGCCCAT  
 GAGGCTCTCCATGGACCCACCAATGCCGGAGCTGCAGGGGGACAGCAGGAGCAAGAACTTCGGCAACTT  
 CTCAATAAAGACAAGAGCAAGCGAAGTGCCGTAGCCAGCAGTGTGGTCAAGCAGAAGCTGGCTGAAGTGA  
 TCCTGAAGAAACAGCAGGCAGCCCTTGAGAGAAGTCCATCCCAGCAGCCCCAGTATCCCTACAGAAC  
 TCTTGAGCCCTTGACACAGAGGGTGTGCCCGCTCCGTGCTTAGCAGCTTCTGCCTCTGTGCCAGC  
 CTGCCACTGAACCCCGGAACACTTCCCTTGCCTAAAACAGTGTCTGAACCCAACTGAAGTTGCGCT  
 ACAAACCAAGAAATCCCTGGAGAGACGAAGAATCCCTGCTCAGGAAGGAGAGTGCCCGCCAGCCT  
 TCGGAGGAGCCCTGCCGAGACCCTTGGAGATTCCTCCCCAGTAGTAGCAGCACACCCCGCTCAGGGTGC  
 AGCTCCCTAATGACAGCGAGCATGGCCCTAACCTGCCCTAGGCTCAGAGGCTGATGGTACCCGACGGA  
 CCCATTCAACTTAGGCCCTCGGGTCTGTACTGGGAAACCCCATGCTCCCCTCTTCTGCACACCGG  
 TCTGGAGCCAGAGGCTGGGGCACCTTACCCTCTCGCCTGCAACCCATTCTCTGCTGGACCCCTCAGTC  
 TCTCATGCCCCACTGTGGACTGTGCCTGGCCTTGGGCCCTTGCCCTTCCACTTGGCCAGCCCTTACTGA  
 CCACCGAGCGGCTCTCTGGGTGAGGCTCCATCGACCACTTAAACCGACCCGCTCAGAGCCCTGCCCC  
 CAGCGCCACAGCCTCCCTCTGCTGGCCCCCTGCAGCCCCGCCAGGATCGGCTCAAACCTCACGTCCAG  
 CTGATCAAGGTGCCACCCTGGGAGCAGCAGCATAGCCGGGCGGCTCTCTCAGGGAAGCCCCGGGACT  
 TGTCTCCCTGCTGAGCCAGAGCCACCTGTGACACCAAGTCCCAACAGCTCAGAGACACCTGCTACA  
 GGGCTGGTCTATGACTCGGTGATGCTGAAACACCAATGTTCTGTGGAGACAACGAAGCATCCCGAGC  
 ATGCAGGCCGATCCAGAGCATCTGGTCCCGGCTGCAGGAACGGGGTCTCCGCAGCCAGTGTGAGTGTCT  
 CCGAGGCCGAAAGGCTTCCCTAGAGGAGCTGCAGTCAGTCCACTCTGAACGGCACGTGCTCTCTACGGC  
 ACGAACCCACTCAGCCGCTCAAACCTGGATAACGGGAAGCTTACAGGACTCCTGGCACAGCGGACGTTTG  
 TGATGCTACCCTGTGGCGGGTGGGGTGCATACTGACACCATCTGGAACGAGTGCATTCTCCAATGC  
 AGCCCGCTGGGCTGCGGGCAGTGTACCCGACCTTGCCCTCAAAGTAGCTTCCCGAGAGCTGAAGAATGGC  
 TTTGCTGTGGTGCAGCCCGGGACACCATGCAGATCATTCTACAGCCATGGGCTTCTGCTTCTCAACT  
 CCGTGGCCATCGCTGCCGACAGCTACAGCAACACGGCAAAGCCAGCAAGATCCTCATTGTTGACTGGGA  
 TGTTACCATGGCAACGGCACACAGCAGACTTCTACCAGGACCCAGTGTGCTCTACATTTCCCTTCAT  
 CGCCATGACGACGGCAACTTCTCCAGGCAGTGGGGCCGTGGATGAGGTGGGAAGTGGCAGTGGCGAGG  
 GCTTCAATGTCAACGTGGCTTGGGCTGGGGCTGGATCCACCCATGGGGATCCTGAGTACCTGGCTGC  
 TTTCAGGATAGTGGTGTGCCATTGCCGAGAGTTTGTCCAGACCTGGTCTGGTGTCTGCTGGGTTT  
 GATGCTGCGGAGGGTACCCAGCCCCGCTGGGTGGCTACCATGTTTCTGCCAAATGTTTTGGGTACATGA  
 CGCAGCAGTTGATGAACCTGGCAGGAGGCGCGTGGTGTGGCCTTAGAGGGTGGACATGACCTCACGGC  
 CATCTGTGATGCCTCGGAGGCTGTGTAGCTGCTTCTGGGCAACAAGGTGGACCCCTTTCAGAAGAA  
 AGCTGGAACAGAAACCAACCTCAGTGCCATCCGCTCGCTGGAAGCTGTGGTCAAGGTCACAGGAAAT  
 ACTGGGGTGCATGCAGCGCTTGGCCTCTGTCCAGACTCCTGGTACCCAGAGTGCCGGGAGCTGATGC  
 AGAAGTGAAGCCGTGACCGCGCTGGCATCCCTTCTGTGGGCATCCTGGCTGAAGACAGGCCCTCGGAG  
 CGGCTGGTGAAGAGGAAGAACCATGAACCTC

**ACCGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231257 representing NM\_001204281  
Red=Cloning site Green=Tags(s)

MDLRVGRPTVEPPPEPALLTLQHPQRLHRHLFLAGLHQQRSAEPMRLSMDPPMPPELQGGQQEQELRQL  
LNKDKSKRSAVASSVVKQKLAEVILKKQQAALERTVHPSSPSIPYRTLEPLDTEGAARSVLSSFLPPVPS  
LPTEPPEHFPLRKTVSEPNLKLRYKPKKSLERRKNPLLRKESAPPSLRRRPAETLGDSSPSSSTPASGC  
SSPNDSEHGPNPALGSEADGDRRTHSTLGPGRPVLGPHAPLFLHHGLEPEAGGTLP SRLQPILLLDPSV  
SHAPLWTVPLGPLPFHFAQPLL TTERLSGSGLHRPLNRTRSEPLPPSATASPLLAPLQPRQDRLKPHVQ  
LIKVPPWEQQHLAGRLSQGSPGDSVLIPLAQVGRPLSRTQSSPAAPVSLLSPEPTCQTQVLSSETPAT  
GLVYDSVMLKHQCSCGDNKHPHAGRIQSIWSRLQERGLRSQCECLRGRKASLEELQSVHSEHVLLYG  
TNPLSRLKLDNGKLTGLLAQRTFVMLPCGGVGVDTDTIWNELHSSNAARWAAGSVTDLAFKVASRELKNG  
FAVVRPPGHHADHSTAMGFCFFNSVAIACRQLQQHGKASKILIVDWDVHHGNGTQQTFFYQDPSVLYISLH  
RHDDGNFFPGSGAVDEVGTGSGEGFNVAWAGGLDPPMGDPEYLAAFRIVVMPIAREFAPDLVLSAGF  
DAAEGHPAPLGGYHVSACFGYMTQQLMNLAGGAVVLALEGGHDLTAICDASEACVAALLGNKVDPLSEE  
SWKQKPNLSAIRSLEAVVRVHRKYWGCMQRLASCPD SWLPRVPGADAEVEAVTALASLSVGILAE DRPSE  
RLVEEEEEPMNL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

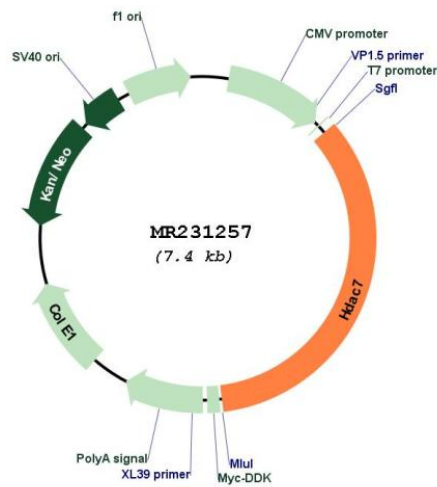
## Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



<b>ACCN:</b>	NM_001204281
<b>ORF Size:</b>	2553 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001204281.1</a> , <a href="#">NP_001191210.1</a>
<b>RefSeq Size:</b>	3791 bp
<b>RefSeq ORF:</b>	2556 bp
<b>Locus ID:</b>	56233
<b>Cytogenetics:</b>	15 F1
<b>MW:</b>	92.7 kDa
<b>Gene Summary:</b>	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]