

## Product datasheet for **MR231381**

### **Hdac7 (NM\_001204278) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Hdac7 (NM_001204278) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hdac7
Synonyms:	5830434K02Rik; HD7; HD7a; Hdac7a; mFLJ00062
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR231381 representing NM\_001204278  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACCTGCGGGTGGGCCAGCGCCACGGTGGAGCCCCACCAGACCTGCGCTGCTGACCCGCAAC  
 ACCCCCAACGCCTGCACCGCCATCTTCTTGGCAGGCTTACACCAGCAACAGCGCTCAGCCGAGCCAT  
 GAGGCTCTCCATGGACCCACCAATGCCGGAGCTGCAGGGGGACAGCAGGAGCAAGAACTTCGGCAACTT  
 CTCAATAAAGACAAGAGCAAGCGAAGTGCCGTAGCCAGCAGTGTGGTCAAGCAGAAGCTGGCTGAAGTGA  
 TCCTGAAGAAACAGCAGGCAGCCCTTGAGAGAAGTCCATCCCAGCAGCCCCAGTATCCCTACAGAAC  
 TCTTGAGCCCTGGACACAGAGGGTGTGCCCGCTCCGTGCTTAGCAGCTTCTGCCTCTGTGCCAGC  
 CTGCCACTGAACCCCGAACACTTCCCTTGCCTAAAACAGTGTCTGAACCCAACTGAAGTTGCGCT  
 ACAAACCAAGAAATCCCTGGAGAGACGAAGAATCCCCTGCTCAGGAAGGAGAGTGCCCGCCAGCCT  
 TCGGAGGAGGCCGCGAGACCCCTGGAGATTCCTCCCCAGTAGTAGCAGCACACCCCGCTCAGGGTGC  
 AGCTCCCCAATGACAGCGAGCATGGCCCTAACCTGCCCTAGGCTCAGAGGCTGATGGTGACCGCAGGA  
 CCCATTCAACTTAGGCCCTCGGGTCTGTACTGGGAAACCCCATGCTCCCCTCTTCTGCACACCGG  
 TCTGGAGCCAGAGGCTGGGGCACCTTACCCTCTCGCCTGCAACCCATTCTCTGCTGGACCCCTCAGTC  
 TCTCATGCCCCACTGTGGACTGTGCCTGGCCTTGGGCCCTTGCCCTTCCACTTGGCCAGCCCTTACTGA  
 CCACCGAGCGGCTCTCTGGGTGAGGCTCCATCGACCACTTAAACCGACCCGCTCAGAGCCCTGCCCC  
 CAGCGCCACAGCCTCCCCTCTGCTGGCCCCCTGCAGCCCCGCCAGGATCGGCTCAAACCTCACGTCCAG  
 CTGATCAAGCCAGCCATCTCCCCTCCCCAGAGGCTGCCAAGCCAGTGAGAAGCCCGACTGCGACAGA  
 TACCCTCGGTGAGGACCTAGAGACAGATGGTGGGGAGTGGACCTATGGCGAATGATGGCTTGAACA  
 TAGGGAGTCAGGCCGTGGGCCTCCTGAGGGCAGAGGCTCCATTTCTGTCAGCAGCATCAACAGGTGCCA  
 CCCTGGGAGCAGCAGCATCTAGCCGGCGGCTCTCTCAGGGAAGCCCGGGGACTCCGTGCTGATACCTC  
 TGGCCAGGTTGGACACCGGCCCTGTCCAGAACCAGTCTTCCCAGCAGCACCTGTCTCCCTGTGAG  
 CCCAGAGCCACCTGTCAGACCAAGTCTCAACAGCTCAGAGACACCTGCTACAGGGCTGGTCTATGAC  
 TCGGTGATGCTGAAACACCAATGTTCTGTGGAGACAACAGCAAGCATCCCGAGCATGCAGGCCGATCC  
 AGAGCATCTGGTCCGGCTGCAGGAACGGGGTCTCCGACCCAGTGTGAGTGTCTCCGAGCCGAAAGGC  
 TTCCCTAGAGGAGCTGCAGTCACTCTGAACGGCACGTGCTCTCTACGGCACGAACCCACTCAGC  
 CGCCTCAAACCTGGATAACGGGAAGTTACAGGACTCCTGGCACAGCGGACGTTTGTGATGCTACCCTGTG  
 GCGGGGTTGGGGTCGATACTGACACCATCTGGAACGAGCTGCATTCTCCAATGCAGCCCGCTGGGCTGC  
 GGGCAGTGTACCGACCTTGCCCTCAAAGTAGCTTCCCAGAGGCTGAAGAATGGCTTTGCTGTGGTGCGA  
 CCCCCGGGACACCATGCAGATCATTCTACAGCCATGGGCTTCTGCTTCTTCAACTCCGTGGCCATCGCCT  
 GCCGACAGCTACAGCAACACGGCAAAGCCAGCAAGATCCTCATTGTTGACTGGGATGTTACCATGGCAA  
 CGGCACACAGCAGACTTCTACCAGGACCCAGTGTGCTTACATTTCCCTTTCATCGCCATGACGACGGC  
 AACTTCTTCCAGGCAGTGGGGCCGTGGATGAGGTGGAACTGGCAGTGGCGAGGGCTTCAATGTCAACG  
 TGGCTTGGGCTGGGGCTTGGATCCACCCATGGGGATCCTGAGTACCTGGCTGCTTTCAGGATAGTGGT  
 GATGCCATTGCCGAGAGTTTGTCTCAGACCTGGTCTGGTGTCTGCTGGGTTTGTGCTGCGGAGGGT  
 CACCCAGCCCGCTGGGTGGCTACCATGTTTCTGCCAAATGTTTTGGGTACATGACGCAGCAGTTGATGA  
 ACTTGGCAGGAGGCGCCGTGGTGTGGCCTTAGAGGGTGGACATGACCTCACGGCCATCTGTGATGCCTC  
 GGAGGCCCTGTGTAGTGTCTTCTGGGCAACAAGTGGACCCCTTTCAGAAGAAAGCTGGAAACAGAAA  
 CCCAACCTCAGTGCCATCCGCTCGTGGAAAGTGTGGTCAAGGTGCACAGGAAACTGCGGGCTGCATGC  
 AGCGCTTGGCCTCTGTCCAGACTCCTGGCTACCCAGAGTGCCGGGAGCTGATGCAGAAGTGAAGCCGT  
 GACCGCGTGGCATCCCTTCTGTGGGCATCCTGGCTGAAGACAGGCCCTCGGAGCGGCTGGTGAAGAG  
 GAAGAACCCATGAACCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231381 representing NM\_001204278  
 Red=Cloning site Green=Tags(s)

MDLRVQGQRPTVEPPPEPALLTLQHPQRLHRHLFLAGLHQQRSAEPMRLSMDPPMPELQGGQQEQELRQL  
 LNKDKSKRSVAVASSVVKQKLAEVLKKQQAALERTVHPSSPSIPYRTLEPLDTEGAARSVLSFLPPVPS  
 LPTEPEHFPLRKTVSEPNLKLRYKPKKSLERRKNPLLRKESAPPSLRRRPAETLGDSSPSSSSTPASGC  
 SSPNDSEHGPNPALGSEADGDRRTHSTLGPGRPVLGPHAPLFLHHGLEPEAGGTLPSRLQPILLLDPSV  
 SHAPLWTVPLGLPLPFHFAQPLLTTERLSGSGLHRPLNRTRSEPLPPSATASPLLAPLQPRQDRPKPHVQ  
 LIKPAISPPQRPAPKPEKPRLRQIPSAEDLETDGGGVGPMANDGLEHRESGRGPPPEGRGSIQLQQHQVVP  
 PWEQQHLAAGRLSQGSPGDSVLIPLAQVGHRLSRTQSSPAAPVLSLSPEPTCQTQVLSNSSETPATGLVYD  
 SYMLKHQCSCGDNSKHPEHAGRIQSIWSRLQERGLRSQCECLRGRKASLEELQSVHSEHVLLYGTNPLS  
 RLKLDNGKLTGLLAQRTFVMLPCGGVGVDTDTIWNELHSSNAARWAAGSVTDLAFKVASRELKNGFAVVR  
 PPGHHADHSTAMGFCFFNSVAIACRQLQQHGKASKILIVDWDVHHNGTQQTFYQDPSVLYISLHRHDDG  
 NFFPGSGAVDEVGTGSGEGFNVAWAGGLDPPMGDPEYLAAFRIVVMPIAREFAPDLVLSAGFDAAEG  
 HPAPLGGYHVSACFGYMTQQLMNLAGGAVVLALEGGHDLTAICDASEACVAALLGNKVDPLSEESWKQK  
 PNLSAIRSLAIVRVHRKYWGCMQRLASCPDSWLPRVPGADAEVEAVTALASLSVGILAE DRP SERLVEE  
 EEPMNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

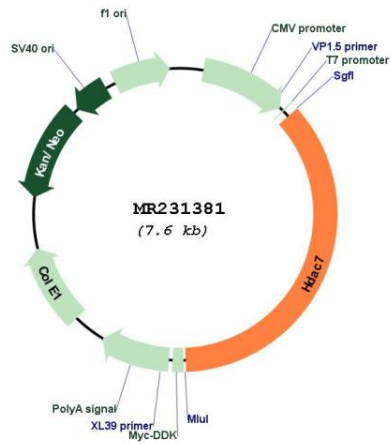


**ACCN:** NM\_001204278

**ORF Size:** 2748 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_001204278.1</a> , <a href="#">NP_001191207.1</a>
<b>RefSeq Size:</b>	4228 bp
<b>RefSeq ORF:</b>	2751 bp
<b>Locus ID:</b>	56233
<b>UniProt ID:</b>	<a href="#">Q8C2B3</a>
<b>Cytogenetics:</b>	15 F1
<b>MW:</b>	99.6 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]

Product images:



Circular map for MR231381