

Product datasheet for MR211598

Hdac4 (NM_207225) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hdac4 (NM_207225) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hdac4
Synonyms:	4932408F19Rik; HD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211598 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCTCCCAAAGCCATCCAGATGGACTTTCTGGCCGAGACCAGCCTGTGGAGCTGCTGAATCCTGCC
GTGTGAACCACATGCCAGCACGGTGGACGTGGCTACAGCGCTGCCTCTGCAAGTGGCCCTACAGCAGT
ACCCATGGACCTGCGCTTGGACCACAGTTCTCACTGCCCTTGGAACTGCATTGCGGGAGCAGCAACTG
CAGCAGGAACCTAGCACTGAAACAGAAGCAGCAGATCCAGCGCAGATACTCATTGCAGAGTTCAGC
GTCAACATGAGCAGTTGTCCCGACAGCATGAGGCACAGTTGCATGAACATATCAAGCAGCAGCAGGAGAT
GCTGGCCATGAAGCACCAGCAGGAGCTGCTGGAGCACCAGCGGAACTGGAGCGGCACCGCAAGAGCAG
GAGCTGGAGAAGCAGCACCGTGAGCAGAAGCTGCAGCAGCTCAAGAACAAGGAGAAGGGCAAAGAGAGTG
CTGTGGCGAGCACAGAGGTGAAGATGAAGCTGCAGGAGTTTGTCTCAACAAGAAGAAGGCTCTAGCCCA
CCGGAACCTGAACCAGTGCATTTCCAGCGATCCCCGCTACTGGTATGGGAAGACACAGCAGACTCCCTT
GACCAGAGCTCTCACCCAGAGTGGGGTGTGAGCCTCTACAACCACCCCGTCTTGGGAATGTACGACG
CCAAAGATGACTCCCTCTTAGGAAAACAGCTTCTGAACCTAACCTGAAATTACGCTCAAGGCTTAAGCA
GAAAGTAGCTGAGAGACGGAGCAGCCCCCTGTTGCGCAGGAAAGATGGCCCTGTGGCCACTGCTCTAAA
AAGCGACCCCTGGATGTTACAGACTCCGCATGCAGCAGCGCCCTGGCTCCGGTCCCAGCTCTCAAATA
GCAGCTCTGGCAACGTACAGCACTGAGAATGGCATCGCACCCACTGTGCCAGCGCTCCAGCTGAGACGAG
CTTGGCACACAGACTTGTGACTCGAGAAGGCTCAGTCGCCCACTTCTCTACACGTACCCATCCTTA
CCCAACATCACCTTGGGACTTCTGCCACTGGCCCTGCCGCTGGTGCGGCAGGTCAGCAGGATGCTGAGA
GGCTTGCTCTCCAGCTCTCCAGCAGCGGATCTTGTTCCTGGGACCCACCTCACCCCGTACCTGAGCAC
CTCGCCCTGGAGAGGGACGGTGCAGCAGCTCACAAACCCCTCTGCAGCACATGGTCTGCTGGAGCAG
CCACCCACCCAGACACCCCTTGTACAGGCTGGGGCGCTGCCCTCCACTCACAGTCCCTGGTTGGTG
CGGACAGGGTGTCCCATCCATTACAAGCTGCGGCAGCACCGCCCTCTGGGGCGCAGCAGTCAAGCACC
CCTGCCGAGAAGCACAGGCCCTGCAGCACCTGGTATCCAGCAGCAGCACCAGCAGTCTCTGGAGAAG



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CACAAGCAACAGTTCAGCAGCAGCAGCTGCACCTCAGCAAGATAATCTCCAAACCTAGTGAGCCACCTC
 GGCAGCCTGAGAGCCACCCAGAGGAGACAGAGGAGGAGCTCCGTGAGCACCAGGCCTTGCTGGATGAGCC
 CTACCTAGATCGGCTACCTGGGCAGAAGGAGCCCTCCCTGGTGGTGTGCAGGTGAAGCAGGAGCCATT
 GAGAGTGAGGAGGAAGAAGCGGAGGCCACTCGAGAGACAGAGCCCGCCAGCGCCAGCCACTGAGCAGG
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 CCAGCATCTGCCACCTTCCCATGTGAGTCCAGGAGCCCCACCAAGCCAAGTTACCCACAGGTCCTTG
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 GAGGATCCAGAGCATCTGGTCCCGCTGCAGGAGACTGGACTCCGTGGCAAGTGTGAGTGCATCCGTGGA
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 CTCTCAACAGACAGAACTGGACAGCTCGCTGACCTCAGTGTTCGTGAGGCTTCTTGTGGTGGTGTGG
 GGTGGATAGCGACACCATATGGAATGAGGTGCACTCGTCTGGGGCAGCCCGCTGGCTGTAGGCTGTGTA
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 ACCATGCCGAGGAGACACCCATGGGTTTCTGCTACTTAACTCCGTGGCAGTTGCAGCCAAACTTCT
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 CAGGAAGTGGAGCACCAGATGAGGTGGGCACAGGGCCAGGCGTGGGTTTCAATGTCAACATGGCTTTTAC
 GGGTGGCCTCGAACCCCATGGGAGACGCTGAGTACTTGGCAGCCTTCAGAACGGTGGTTATGCCTATC
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 GTGTCTGCTCTGCTGGGAAACGAGCTTGGCCTCTGCCAGAAAAGTTTACATCAGAGCCCAATGCCA
 ATGCTGCCACTCCATGGAGAAAGTGTGACATCCACAGCAAGTACTGGCGCTGCAGCGCTGTGTC
 CTCACCGTGGGCACTCTCTGATTGAGGCGCAAAGTGTGAGAAGGAAGAAGCTGAGACAGTACCAGCC
 ATGGCCTCGTGTCTGTAGGCGTCAAACCTGCTGAGAAGAGATCTGAGGAGGAGCCATGGAGGAGGAAC
 CACCCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211598 protein sequence
 Red=Cloning site Green=Tags(s)

MSSQSHPDGLSGRDQPVELLNPARVNHMPSTVDVATALPLQVAPTAVPMDLRDLHQFSLPLEPALREQQL
 QQELLALKQKQQIQRQILIAEFQRQHEQLSRQHEAQLHEHIKQQQEMLAMKHQQELLEHQKLERHRREQ
 ELEKQHQREKQLKLNKEKKGESAVASTEVKMKLQEFVLNKKKALAHNRLNHCISDPRYWGKTQHSSL
 DQSSPPQSGVSASYNHPVLGMYDAKDDFPLRKTASEPNLKLRSRLKQVAERRSSPLLRRKDGPVATALK
 KRPLDVTDSACSSAPGSGPSSPSSSGNVSTENGIAPTVPSPAETS LAHRLVREGSVAPLPLYTSPSL
 PNITLGLPATGPAAGAAGQQAERLALPALQQRILFPGTHLTPYLSTSPLERDGAHAHNPLLQHMVLLLEQ
 PPTQTPLVTGLGALPLHSQSLVGADRVSPSIHKLQRHRLGRTQSAPLPQNAQALQHLVIQQHQHFLEK
 HKQQFQQQLHLKIIISKPSEPPRPQESHPEETEELREHQALLDEPYLDRLPGQKPEPLAGVQVKQEP
 ESEEEAEATRETEPGQRPAEQELLFRQQALLLEQQRHQRLRNYQASMEAGIPVFSGSHRPLSRAQSS
 PASATFPMSVQEPPTKPRFTTGLVYDTLMLKHQCTCGNTNSHPEHAGRIQSIWSRLQETGLRGKCECIRG
 RKATLEELQTVHSEAHLLYGTNPLNRQKLDSSLTSVFVRLPCGGVGVSDTIWNEVHSSGAARLAVGCV
 VELVFKVATGELKNGFAVVRPPGHAAEESTPMGFCYFNSVAVAKLLQQRNLVSKILIVDWDVHHGNGTQ
 QAFYNDPNVLYMSLHRYDDGNFFPQSGAPDEVTGPGVGFNVNMAFTGGLEPPMGDAEYLAAFRTVVMPI
 ANEFAPDVVLLVSSGFDAVEGHPTPLGGYNLSAKCFGYLTKQLMGLAGRLVLALEGGHDLTAICDASEAC
 VSALLGNELEPLPEKVLHQRPNANAVHSMKVMIDIHISKYWRCLQRLSSTVGHSLIEAQKCEKEEAETVTA
 MASLSVGKPAEKRESEEPMEEEPPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_207225

ORF Size: 3231 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 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.

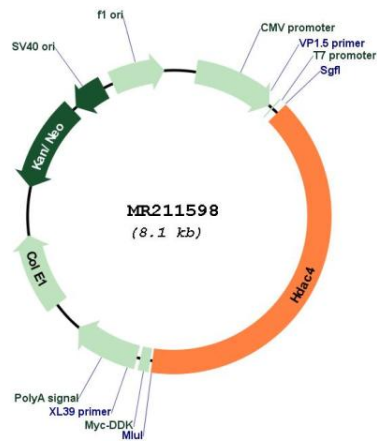
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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: [NM_207225.2](#)
RefSeq Size: 3960 bp
RefSeq ORF: 3231 bp
Locus ID: 208727
UniProt ID: [Q6NZM9](#)
Cytogenetics: 1 D
MW: 118.6 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 via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D. Deacetylates HSPA1A and HSPA1A at 'Lys-77' leading to their preferential binding to co-chaperone STUB1.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211598