

Product datasheet for RC211495

HDAC4 (NM_006037) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | HDAC4 (NM_006037) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | HDAC4 |
| Synonyms: | AHO3; BDMR; HA6116; HD4; HDAC-4; HDAC-A; HDACA |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC211495 representing NM_006037 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCTCCCAAAGCCATCCAGATGGACTTTCTGGCCGAGACCAGCCAGTGGAGCTGCTGAATCCTGCC
GCGTGAACCACATGCCAGCACGGTGGATGTGGCCACGGCGTGCCTCTGCAAGTGGCCCCCTCGGCAGT
GCCCATGGACCTGCGCCTGGACCACCAGTTCTCACTGCCTGTGGCAGAGCCGGCCCTGCGGGAGCAGCAG
CTGCAGCAGGAGCTCCTGGCGCTCAAGCAGAAGCAGCAGATCCAGAGGCAGATCCTCATCGTGAGTTCC
AGAGGCAGCAGCAGCAGCTCTCCGGCAGCAGGCGCAGCTCCACGAGCACATCAAGCAACAACAGGA
GATGCTGGCCATGAAGCACCAGCAGGAGCTGCTGGAACACCAGCGGAAGCTGGAGAGGCACCGCCAGGAG
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CCACCGGAATCTGAACCACTGCATTTCCAGCGACCCTCGCTACTGGTACGGGAAAACGCAGCACAGTTCC
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GCAGAAAGTGGCCGAAAGACGGAGCAGCCCCCTGTTACGCAGGAAAGACGGGCCAGTGGTCACTGCTCTA
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TTGGTGCAGACCGGTGTCCCCCTCCATCCACAAGCTGCGGCAGCAGCCCACTGGGGCGGACCCAGTC
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GAGAAACACAAGCAGCAGTTCACGACGAGCAACTGCAGATGAACAAGATCATCCCCAAGCCAAGCGAGC
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 GAAGAAGCCGAGACGGTACCGCATGGCTCGCTGTCCGTGGGCGTGAAGCCCGCCGAAAAGAGACCAG
 ATGAGGAGCCCATGGAAGAGGAGCCGCCCTG

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 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC211495 representing NM_006037
 Red=Cloning site Green=Tags(s)

MSSQSHPDGLSGRDQPVPELLNPARVNHMPSTVDVATALPLQVAPSAVPMDLRLDHQFSLPVAEPALREQQ
 LQQELLALKKQKQIQRQILIAEFQRQHEQLSRQHEAQLHEHIKQQQEMLAMKHQQELLEHQRKLERHRQE
 QELEKQHQREKLQQLKNKEKGKESAVASTEVMKMLQEFVFNKKKALAHRLNHCISSDPRYWGKTHSS
 LDQSSPPQSGVSTSYNHPVLGMYDAKDDFPLRKTASEPNLKLRSRLKQVAERRSSPLLRRKDGPPVTAL
 KKRPLDVTDSACSSAPGSGPSSPNNSSGSVSAENGIAPAVPSIPAETSLAHLRVAREGSAAPLPLYTS
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 EKHKQQFQQQLQMNKIIPKPSEPARQPESHPEETEEELREHQALLDEPYLDRLPGQKEAHAQAGVQVKQ
 EPIESDEEEAEPREVEPQRPSEQELFRQALLLEQQRHQLRNYQASMEAAGIPVSGGHRPLSRA
 QSSPASATFPVSVQEPPTKPRFTTGLVYDTLMLKHQCTCGSSSSHPEHAGRIQSIWSRLQETGLRGKCEC
 IRGRKATLEELQTVHSEHTLLYGTNPLNRQKLDKLLGSLASVVFVRLPCGGVGVSDTIWNEVHSAGA
 ARLAVGCVVELVFKVATGELKNGFAVVRPPGHHAEESTPMGFYFNSVAVAAKLLQQRLSVSKILIVDWD
 VHHGNGTQQAFYSDPSVLYMSLHRYDDGNFFPGSGAPDEVGTGPGVGFVNMAFTGGLDPPMGDAEYLAA
 FRTVVMPJASEFAPDVVLVSSGFDAVEGHPTPLGGYNLSARCFGYLTKQLMGLAGGRIVLALEGGHDLTA
 ICDASEACVSALLGNELDPLPEKVLQQRPNANAVRSMKVMIEHISKYWRCLQRTTSTAGRSLIEAQTCE
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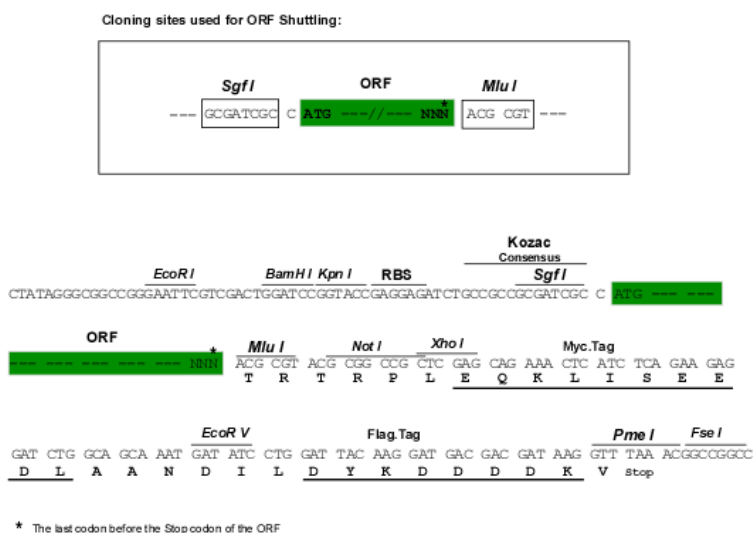
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2897_g07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006037

ORF Size: 3252 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.

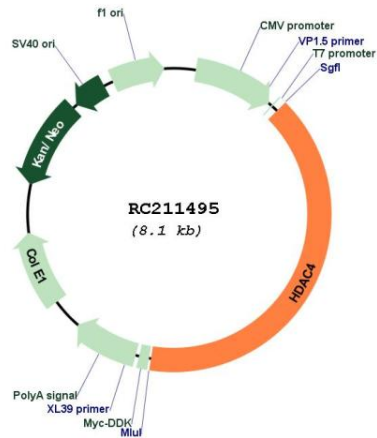
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

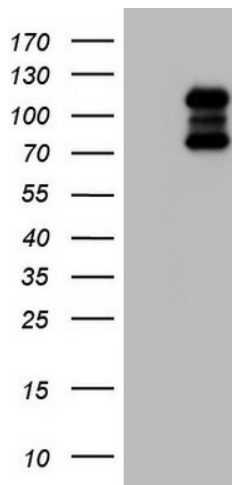
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|-------------------------------|--|
| Reconstitution Method: | <ol style="list-style-type: none">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. |
| Note: | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| RefSeq: | NM_006037.4 |
| RefSeq Size: | 8459 bp |
| RefSeq ORF: | 3255 bp |
| Locus ID: | 9759 |
| UniProt ID: | P56524 |
| Cytogenetics: | 2q37.3 |
| Domains: | Hist_deacetyl |
| Protein Families: | Druggable Genome, Transcription Factors |
| MW: | 118.9 kDa |
| Gene Summary: | Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. This protein does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. [provided by RefSeq, Jul 2008] |

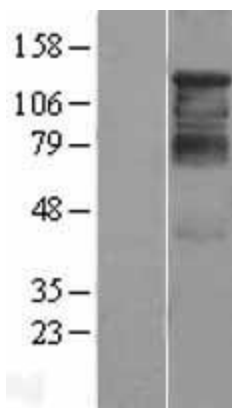
Product images:



Circular map for RC211495



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HDAC4 (Cat# RC211495, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HDAC4 (Cat# [TA805008]). Positive lysates [LY416910] (100ug) and [LC416910] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416910]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211495 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HDAC4 protein (Cat# [TP311495]). The protein was produced from HEK293T cells transfected with HDAC4 cDNA clone (Cat# RC211495) using MegaTran 2.0 (Cat# [TT210002]).