

Product datasheet for SC124229

HDAC5 (NM_005474) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: HDAC5 (NM_005474) Human Untagged Clone
Tag: Tag Free
Symbol: HDAC5
Synonyms: HD5; NY-CO-9
Mammalian Cell Selection: None
Vector: pCMV6-XL6
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_005474 edited
GACAGGGGCGCCTTCCCTACAGGGATGCCGTTCTGAGTGCCTGACTGCCTCGCCCCGAAG
GATGGCCTCGGATGGGCATTAGAGGCACGGCGGGCCCGGGCTCCCGTCCCGTCCGTCTGT
CTGTTATCGTCTGTCTCTTGACATCACCGCAGCTCCACCCCTCCCGTCCAGCCCC
AACGCCAGCTTCTGCAGGCCAGAGCCGCATGAACTCTCCAACGAGTCGGATGGGAT
GTCAGGTCGGGAACCATCCTTGAAATCCTGCCGCGACTTCTCTGCACAGCATCCCTGT
GACAGTGGAGGTGAAGCCGGTGTGCCAAGAGCCATGCCAGTTCATGGGGGTGGGG
TGGAGGCAGCCCCAGCCTGTGGAGCTACGGGGGGCTCTGGTGGGCTCTGTGGACCCAC
ACTGCGGGAGCAGCAACTGCAGCAGGAGCTCCTGGCGCTCAAGCAGCAGCAGCAGCTGCA
GAAGCAGCTCCTGTTGCTGAGTCCAGAAACAGCATGACCACCTGACAAGGCAGCATGA
GGTCCAGCTGCAGAAGCACCTCAAGCAGCAGCAGGAGATGCTGGCAGCCAAGCAGCAGCA
GGAGATGCTGGCAGCCAAGCGGCAGCAGGAGCTGGAGCAGCAGCGCAGCGGGAGCAGCA
GCGGCAGGAAGAGCTGGAGAAGCAGCGGCTGGAGCAGCAGCTGCTCATCTGCGGAACAA
GGAGAAGAGCAAAGAGAGTGCCATTGCCAGCACTGAGGTAAGGCTGAGGCTCCAGGAATT
CCTCTTGTGCAAGTCAAAGGAGCCACACCAGGCGGCCTCAACATTCCCTCCCAGCA
CCCCAAATGCTGGGGAGCCACCATGCTTCTTTGGACCAGAGTTCCTCCCTCCCAGAGCGG
CCCCCTGGGACGCCTCCCTCTACAACTGCCTTTGCCTGGGCCCTACGACAGTCGAGA
CGACTTCCCCCTCCGCAAAACAGCCTCTGAACCAACTTAAAAGTGCCTCAAGGCTAAA
ACAGAAGGTGGCTGAGCGGAGAAGCAGTCCCCTCCTGCGTCGCAAGGATGGGACTGTTAT
TAGCACCTTTAAGAAGAGAGCTGTTGAGATCACAGGTGCCGGCCCTGGGGCGTCGTCCGT
GTGTAACAGCGCACCCGGCTCCGCCCCAGCTCTCCAACAGCTCCCACAGCACCATCGC
TGAGAATGGCTTTACTGGCTCAGTCCCCAATCCCACTGAGATGCTCCCTCAGCACCG
AGCCCTCCCTCTGGACAGCTCCCCAACCAAGTTCAGCCTTACACGTCTCCTTCTGCC
CAACATCTCCCTAGGGCTGCAGGCCACGGTCACTGTCACCAACTCACACCTCACTGCCTC
CCCGAAGTGTGACACAGCAGGAGGCCGAGAGGCAGGCCCTCCAGTCCCTGCGGCAGGG
TGGCACGCTGACCGCAAGTTCATGAGCACATCCTCTATTCTGGCTGCCTGCTGGGCGT
GGCACTGGAGGGGACGGGAGCCCCACGGGCATGCCTCCCTGCTGCAGCATGTGCTGTT



[View online »](#)

```
GCTGGAGCAGGCCCGGCAGCAGACACCCTCATTGCTGTGCCACTCCACGGGCAGTCCCC
ACTAGTGACGGGTGAACGTGTGGCCACCAGCATGCGGACGGTAGGCAAGCTCCCAGCCGCA
TCGGCCCCTGAGCCGCACTCAGTCTCACCGCTGCCGACAGTCCCCAGGCCCTGCAGCA
GCTGGTTCATGCAACAACAGCACCAGCAGTTCCTGGAGAAGCAGAAGCAGCAGCAGTACA
GCTGGGCAAGATCCTCACCAAGACAGGGGAGCTGCCAGGCAGCCACCACCCACCTGA
GGAGACAGAGGAGGAGCTGACGGAGCAGCAGGAGGTCTTGCTGGGGGAGGGAGCCCTGAC
CATGCCCCGGGAGGGCTCCACAGAGAGTGAGAGCACACAGGAAGACCTGGAGGAGGAGGA
CGAGGAAGAGGATGGGGAGGAGGAGGATTGCATCCAGGTAAAGGACGAGGAGGGCGA
GAGTGGTGTGAGGAGGGGCCGACTTGGAGGAGCCTGGTGTGGATACAAAAAAGTGT
CTCAGATGCCAGCCGCTGCAGCCTTTGCAGGTGTACCAGGCGCCCTCAGCCTGGCCAC
TGTGCCACCAGGCCCTGGGCCGTACCCAGTCTCCCCTGCTGCCCTGGGGGCATGAA
GAGCCCCCAGACCAGCCGTCAAGCACCTTTCACCACAGGTGTGGTCTACGACACGTT
CATGCTAAAGCACCAGTGCATGTGCGGGAACACACAGTGCACCCTGAGCATGCTGGCCG
GATCCAGAGCATCTGGTCCCGGTGCAGGAGACAGGCCTGCTTAGCAAGTGCAGCGGAT
CCGAGGTGCGAAAGCCACGCTAGATGAGATCCAGACAGTGCACCTGAATACCACACCT
GCTCTATGGGACCAGTCCCTCAACCGGAGAAGCTAGACAGCAAGAAGTTGCTCGGCC
CATCAGCCAGAAGATGTATGCTGTGCTGCCTTGTGGGGGCATCGGGTGGACAGTGACAC
CGTGTGGAATGAGATGCACTCCTCCAGTGTGTGCGCATGGCAGTGGGCTGCCTGCTGGA
GCTGGCCTTCAAGGTGGCTGCAGGAGAGCTCAAGAATGGATTTGCCATCATCCGGCCCC
AGGACACCACGCCGAGGAATCCACAGCCATGGGATTCTGCTTCTTCAACTCTGTAGCCAT
CACCGCAAACTCTACAGCAGAAGTTGAACGTGGGCAAGTCTCATCGTGGACTGGGA
CATTACCATGGCAATGGCAGCCAGCAGCGTTCTACAATGACCCCTCTGTGCTTACAT
CTCTCTGCATCGCTATGACAACGGGAACCTTTTCCAGGCTCTGGGGCTCCTGAAGAGGT
TGGTGGAGGACCAGGCGTGGGGTACAATGTGAACGTGGCATGGACAGGAGGTGTGGACCC
CCCCATTGGAGACGTGGAGTACCTTACAGCCTTCAGGACAGTGGTGTGATGCCATTGCCCA
CGAGTTCTCACCTGATGTGGTCTAGTCTCCGCCGGGTTTGTGCTGTTGAAGGACATCT
GTCTCCTCTGGGTGGCTACTCTGTACCAGCCAGATGTTTTGGCCACTTGACCAGGCAGCT
GATGACCCTGGCAGGGGGCCGGTGGTGTGCGCCTGGAGGGAGGCCATGACTTGACCGC
CATCTGTGATGCCTCTGAGGCTTGTGTCTCGGCTCTGCTCAGTGTAGAGCTGCAGCCCT
GGATGAGGCAGTCTTGCAGCAAAAGCCCAACATCAACGCAGTGGCCACGCTAGAGAAAGT
CATCGAGATCCAGAGCAAACTGGAGCTGTGTGCAGAAGTTCGCCGCTGGTCTGGGCCG
GTCCCTGCGAGAGGCCAAGCAGGTGAGACCGAGGAGGCCGAGACTGTGAGCGCCATGGC
CTTGCTGTGCGGTGGGGGCCGAGCAGGCCAGGCTGCGGCAGCCGGGAACACAGCCCAAG
GCCGCGAGAGGCCATGGAGCAGGAGCCTGCCCTGTGACGCCCCGGCCCCCATCCCTC
TGGGCTTACCATTGTGATTTTGTATTTTTTTCTATTAATAAAAAAAGTCACACATTC
AAAAAAAAAAAAAAAA
```

Restriction Sites:

Please inquire

ACCN:

NM_005474

Insert Size:

3700 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: The ORF of this clone has been fully sequenced and found to be a perfect match to NM_005474.4.

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_005474.4](#), [NP_005465.2](#)

RefSeq Size: 5324 bp

RefSeq ORF: 3369 bp

Locus ID: 10014

UniProt ID: [Q9UQL6](#)

Cytogenetics: 17q21.31

Domains: Hist_deacetyl

Protein Families: Druggable Genome, Transcription Factors

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 the class II histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. It coimmunoprecipitates only with HDAC3 family member and might form multicomplex proteins. It also interacts with myocyte enhancer factor-2 (MEF2) proteins, resulting in repression of MEF2-dependent genes. This gene is thought to be associated with colon cancer. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) uses an alternate in-frame splice site compared to variant 3. The resulting isoform (1) has the same N- and C-termini but is 1 aa shorter compared to isoform 3.