

## Product datasheet for **RC224919**

### HDAC2 (NM\_001527) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HDAC2 (NM_001527) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HDAC2
Synonyms:	HD2; KDAC2; RPD3; YAF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC224919 representing NM\_001527  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCGCTCACCTCCCTGCGGCCTCTGAGGTGGTTTGGTGGCCCCCTCTCGCGAGTTGGTGGCGTGC  
 ACCTCCGATTCCGAGCTTTCGGCACCTCTGCCGGTGGTACCGAGCCTTCCCGGCCCCCTCCTCCT  
 CCCACCGCCTGCCCTTCCCGCGGGACTATCGCCCCACGTTTCCCTCAGCCCTTTTCTCCTCCCGCCG  
 AGCCGCGCGGCAGCAGCAGCAGCAGCAGCAGCAGCAGGAGGAGAGCCCGTGGCGCGGTGGCCGGGAGC  
 CCATGGCGTACAGTCAAGGAGCGGCAAAAAAAAAAGTCTGCTACTACTACGCGGTGATATTGAAATTA  
 TTATTATGGACAGGGTATCCCATGAAGCCTCATAGAATCCGCATGACCCATAACTTGCTGTTAAATTAT  
 GGCTTATACAGAAAAATGAAAAATATATAGGCCCATAAAGCCACTGCCGAAGAAATGACAAAATATCACA  
 GTGATGAGTATATCAAAATTTCTACGGTCAATAAGACCAGATAACATGTCTGAGTATAGTAAGCAGATGCA  
 GAGATTTAATGTTGGAGAAGATTGTCCAGTGTGGTGGACTCTTTGAGTTTTGTCAGCTCTCAACTGGC  
 GGTTCAAGTTGCTGGAGCTGTGAAGTTAAACCGACAACAGACTGATATGGCTGTTAATTGGCTGGAGGAT  
 TACATCATGCTAAGAAATCAGAAGCATCAGGATTCGTTACGTTAATGATATTGTGCTTGCCATCCTTGA  
 ATTACTAAAGTATCATCAGAGAGTCTTATATATTGATATAGATATTCATCATGGTGGTGGTGAAGAA  
 GCTTTTTATACAACAGATCGTGTAAAGCAGGTATCATTCCATAAAATAGGGGAATACTTTCTGGCACAG  
 GAGACTTGAGGGATATTGGTGTGAAAAGGCAAACTACTATGCTGTCAATTTTCCAATGAGAGATGGTAT  
 AGATGATGAGTATATGGGCAGATATTAAGCCTATTATCTCAAAGGTGATGGAGATGTCAACCTAGT  
 GCTGTGGTATTACAGTGTGGTGCAGACTCATTATCTGGTATAGACTGGGTTGTTCAATCTAACAGTCA  
 AAGGTCATGCTAAATGTGTAGAAGTTGAAAACTTTTAACTTACCATTACTGATGCTTGAGGAGGTGG  
 CTACACAATCCGTAATGTTGCTCGATGTTGGACATATGAGACTGCAGTTGCCCTTGATTGTGAGATTCCC  
 AATGAGTTGCCATATAATGATTACTTTGAGTATTTGGACCAGACTTCAAAGTGCATATTAGTCCTTCAA  
 ACATGACAAAACAGAACTCCAGAATATATGGAAAAGATAAAACAGCGTTTGTGAAAATTTGCGCAT  
 GTTACCTCATGCACCTGGTGTCCAGATGCAAGCTATTCCAGAAGATGCTGTTTCAAGACAGTGGAGAT  
 GAAGATGGAGAAGATCCAGACAAGAAATTTCTATTGAGCATCAGACAAGCGGATAGCTTGTGATGAAG  
 AATTCTCAGATTCTGAGGATGAAGGAGAAGGAGGTGCAAGAAATGTGGCTGATCATAAGAAAGGAGCAAA  
 GAAAGCTAGAATTGAAGAAGATAAGAAAGAAACAGAGGACAAAAAACAGACGTTAAGGAAGAAGATAAA  
 TCCAAGGACAACAGTGGTAAAAAACAGATACCAAGGAACCAATCAGAACAGCTCAGCAACCCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC224919 representing NM\_001527  
 Red=Cloning site Green=Tags(s)

MRSPPCGLLRWFGPLLASWCRCHLRFRAFSGTWSAGWYRAFPAPPPLLPPACPSPRDYRPHVSLSPFLSRP  
 SRGGSSSSSSRRRSPVAAVAGEPMAYSQGGGKKKVCYYDGDIGNYYYQGHPMKPHRIRMTHNLLLN  
 GLYRKMIEYRPHKATAEEMTKYHSDEYIKFLRSIRPDNMSEYSKQMRQFNVGEDCPVFDGLFEFCQLSTG  
 GSVAGAVKLNRRQTDMAVNWAGGLHHAHKSEASGFCYVNDIVLAILELLKYHQVLYIDIDIHHGDGVEE  
 AFYTTDRVMTVSFHKYGEYFPGTDLRIDGAGKGYAVNFPMDGIDDESQYQIFKPIISKVMEMYPQS  
 AVVLQCGADSLSGDRLGCFNLTVKGHAKCDEVVKTFFNLPLMLGGGGYTIIRNVARCWYETAVALDCEIP  
 NELPYNDYFEYFGPDFKLHISPSNMTNQTPEYMEKIKQRLFENLRMLPHAPGVQMQAIPEDAVHEDSGD  
 EDGEDPKRISIRASDKRIACDEEFSDSEDEGEGRRNVADHKKGAKKARIEEDKKETEDKKTVDVKEEDK  
 SKDNSGEKTDTKGKSEQLSNP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2798\\_a01.zip](https://cdn.origene.com/chromatograms/mg2798_a01.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**ACCN:** NM\_001527

**ORF Size:** 1746 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](mailto: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](#)

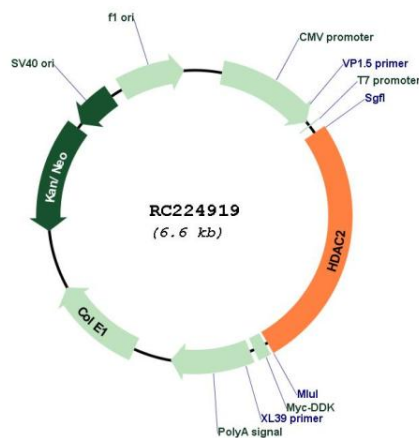
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

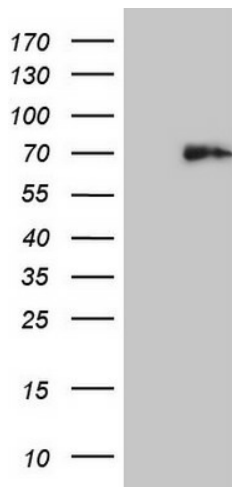
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_001527.2</a> , <a href="#">NP_001518.2</a>
<b>RefSeq Size:</b>	6656 bp
<b>RefSeq ORF:</b>	1467 bp
<b>Locus ID:</b>	3066
<b>UniProt ID:</b>	<a href="#">Q92769</a>
<b>Cytogenetics:</b>	6q21
<b>Domains:</b>	Hist_deacetyl
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
<b>Protein Pathways:</b>	Cell cycle, Chronic myeloid leukemia, Huntington's disease, Notch signaling pathway, Pathways in cancer
<b>MW:</b>	66 kDa
<b>Gene Summary:</b>	This gene product belongs to the histone deacetylase family. Histone deacetylases act via the formation of large multiprotein complexes, and are responsible for the deacetylation of lysine residues at the N-terminal regions of core histones (H2A, H2B, H3 and H4). This protein forms transcriptional repressor complexes by associating with many different proteins, including YY1, a mammalian zinc-finger transcription factor. Thus, it plays an important role in transcriptional regulation, cell cycle progression and developmental events. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2010]

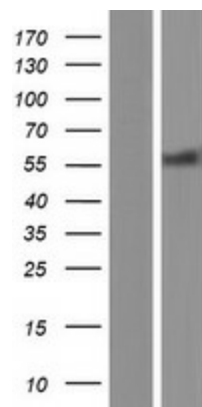
### Product images:



Circular map for RC224919



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HDAC2 (Cat# RC224919, 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-HDAC2 (1:2000) (Cat# [TA808327]). Positive lysates [LY419878] (100ug) and [LC419878] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419878]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224919 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).