

Product datasheet for **RG224919**

HDAC2 (NM_001527) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HDAC2 (NM_001527) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HDAC2
Synonyms:	HD2; KDAC2; RPD3; YAF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG224919 representing NM_001527
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCGCTCACCTCCCTGCGGCCTCTGAGGTGGTTTGGTGGCCCCCTCTCGCGAGTTGGTGCCGCTGCC
 ACCTCCGATTCCGAGCTTTCGGCACCTCTGCCGGTGGTACCGAGCCTTCCCGGCCCCCCCTCTCTCCT
 CCCACCGCCTGCCCTTCCCGCGGGACTATCGCCCCACGTTTCCCTCAGCCCTTTTCTCTCCCGGCCG
 AGCCGCGCGGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGGAGGAGAGCCCGTGGCGCGGTGGCCGGGAGC
 CCATGGCGTACAGTCAAGGAGCGGCAAAAAAAAAAGTCTGCTACTACTACGACGGTGATATTGAAATTA
 TTATTATGGACAGGGTCATCCCATGAAGCCTCATAGAATCCGCATGACCCATAACTTGCTGTTAAATTAT
 GGCTTATACAGAAAAATGAAAAATATATAGGCCCATAAAGCCACTGCCGAAGAAATGACAAAATATCACA
 GTGATGAGTATATCAAAATTTCTACGGTCAATAAGACCAGATAACATGTCTGAGTATAGTAAGCAGATGCA
 GAGATTTAATGTTGGAGAAGATTGTCCAGTGGTTGATGGACTCTTGAGTTTTGTCAGCTCTCAACTGGC
 GGTTCAAGTTGCTGGAGCTGTGAAGTTAAACCGACAACAGACTGATATGGCTGTTAATTGGCTGGAGGAT
 TACATCATGCTAAGAAATCAGAAGCATCAGGATCTGTTACGTTAATGATATTGTCTTGCCATCCTTGA
 ATTACTAAAGTATCATCAGAGAGTCTTATATATTGATATAGATATTCATCATGGTGATGGTGTGAAGAA
 GCTTTTTATACAACAGATCGTGTAAAGCAGGTATCATTCCATAAAATATGGGGAATACTTTCTGGCACAG
 GAGACTTGAGGGATATTGGTGTGAAAAGGCAAACTACTATGCTGTCAATTTTCCAATGAGAGATGGTAT
 AGATGATGAGTCAATGAGGAGATTTAAGCCTATTATCTCAAAGGTGATGGAGATGTATCAACCTAGT
 GCTGTGGTATTACAGTGTGGTGCAGACTCATTATCTGGTGATAGACTGGGTTGTTCAATCTAACAGTCA
 AAGGTCATGCTAAATGTGTAGAAGTTGAAAACTTTTAACTTACCATTACTGATGCTTGGAGAGGTGG
 CTACACAATCCGTAATGTTGCTCGATGTTGGACATATGAGACTGCAGTTGCCCTTGATTGTGAGATTC
 AATGAGTTGCCATATAATGATTACTTTGAGTATTTTGGACCAGACTTCAAAGTGCATATTAGTCCTTCAA
 ACATGACAAACCAGAACTCCAGAATATATGGAAAAGATAAAACAGCGTTTGTGAAAATTTGCGCAT
 GTTACCTCATGCACCTGGTGTCCAGATGCAAGCTATTCCAGAAGATGCTGTTTCAAGACAGTGGAGAT
 GAAGATGGAGAAGATCCAGACAAGAAATTTCTATTGAGCATCAGACAAGCGGATAGCTTGTGATGAAG
 AATTCTCAGATTCTGAGGATGAAGGAGAAGGAGGTGCAAGAAATGTGGCTGATCATAAGAAAGGAGCAAA
 GAAAGCTAGAATTGAAGAAGATAAGAAAGAAACAGAGGACAAAAAACAGACGTTAAGGAAGAAGATAAA
 TCCAAGGACAACAGTGGTAAAAAACAGATACCAAGGAACCAATCAGAACAGCTCAGCAACCCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG224919 representing NM_001527
 Red=Cloning site Green=Tags(s)

MRSPPCGLLRWFGGPLLASWCRCHLRFRAFGTSGWYRAFPAPPPLLPPACPSPRDYRPHVSLSPFLSRP
 SRGSSSSSSRRRSPVAAVAGEPMAYSQGGGKKKVCYYDGDIGNYYYGQGHMPKPHRIRMTNLLNLY
 GLYRMEIYRPHKATAEEMTKYHSDEYIKFLRSIRPDNMSEYSKQMRFNVDGCPVDFGLFEFCQLSTG
 GSVAGAVKLNRRQQTDMAVNWAGGLHHAHKSEASGFCYVNDIVLAILELLKYHQRVLYIDIDIHHGDGVEE
 AFYTTDRVMTVSFHKYGEYFPGTDLRDIAGGKGYAVNFPMRDGDDESQYGFKPIISKVMEMYQPS
 AVVLQCGADSLSGDRLGCFNLTVKGHAKCDEVVKTFFNLPLMLGGGGYTIRNVARCWYETAVALDCEIP
 NELPYNDYFEYFGPDFKLHISPSNMTNNTPEYMEKIKQRLFENLRMLPHAPGVQMQAIPEDAVHEDSGD
 EDGEDPKRISIRASDKRIACDEEFSDSEDEGEGGRRNVADHKKGAKKARIEEDKKETEDKKTVDVKEEDK
 SKDNSGEKTDTKGKSEQLSNP

TRTRPLE – GFP Tag – V

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 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](#)

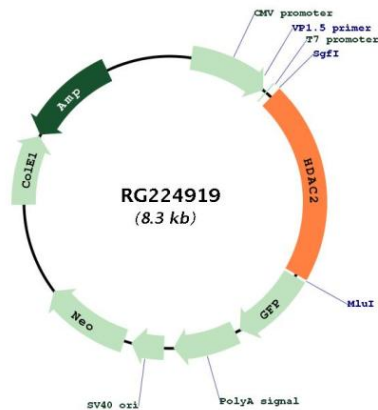
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_001527.2, NP_001518.2</u>
RefSeq Size:	6659 bp
RefSeq ORF:	1467 bp
Locus ID:	3066
UniProt ID:	<u>Q92769</u>
Cytogenetics:	6q21
Domains:	Hist_deacetyl
Protein Families:	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
Protein Pathways:	Cell cycle, Chronic myeloid leukemia, Huntington's disease, Notch signaling pathway, Pathways in cancer
Gene Summary:	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 RG224919