

Product datasheet for **RR214841**

Uhrf1 (NM_001008882) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Uhrf1 (NM_001008882) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Uhrf1
Synonyms:	Ac2-121; Np95
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR214841 representing NM_001008882
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGTCAGGAATCTTTGGCGAGGGAGGATCCCTTCTCCTCTCCCGTATTGCTACGGGTTTACAAG
 ACCTGGGCCTTCTTGGTAACTAGATATAGCCCGCAGGGCCACACTGACTGGGATCTCCCTCTGTTTTTC
 AGTATTCCTTCAGCACATCGGCATCATGTGGATCCAGGTTCAACTATGGATGGGAAGGAGACCCACACC
 GTGAACCTCTATCCCGTTGACCAAGGTGCAGGAGCTGAGGAAAAAGATTGAGGAGCTGTTTCACGTGG
 AACCCCAATTGCAGAGACTCTTTTACAGGGGCAACAGATGGAGGATGGTCACACACTCTTCGATTATGA
 CGTGCGCCTCAATGACACAATCCAGCTGCTGGTGCAGAGTCTGGCCCTACCTCTCAGTACGAAAAGAA
 CGGGACTCGGAGCTCTCAGACTCTGACTCTGGCTATGGTGTGGGTACAGTGAATCAGACAAGTCGTCCA
 CGCATGGTGAAGGACAGCTGATGGGGATGACAAGACTGTGTGGGAGGACTGACCTAGGACTGTACAA
 GGTTAATGAGTACGTGGACGTGCGTGACAATATCTTTGGTGCATGGTTTGAGGCCAGGTGGTCCAGGTA
 CAGAAGAAAGCCCTATCTGAGGAAGAGCCCTGTAGCTCCAGTGCCATTATGGCCCAAGAGGATGACATCA
 TGTACCACATCAAGTATGATGACTATCCAGAGCATGGAGTGGACATTGTCAAAGCCAAGAATGTCGGTGC
 TCGCGCTCGCACTGTGATCCCCTGGGAGGACCTGGAGGTGGGTACAGTGGTTCATGGCCAACCTACAACGTG
 GACTATCCAGAAAACGTGGCTTCTGGTATGATGTTGAGATTTGTAGGAAGCGCCAAACCAGGACGGCAC
 GTGAACGTATGGCAACGTACGCTTTTGAATGATTCTCAGCTCAACACTGTCCGGATCATATTTGTGGA
 TGAAGTCTTGAAGATTGAGCTCCCTAATGAGAGGAGCCCTTGATTGGTAGCCCTCGAGACGGAAGAGC
 GGCCATCCTGCCAGTACTGCAAGGATGACGAGAACAACCGTGTGCAAGTGTGCCTGCCATATTTGTG
 GTGGCGGTGAGGCTCCCGAGAAAACAAGTGTGTGTGATGAGTGTGACATGGCCTTCCACCTGTACTGTG
 GCAGCCACCGCTCACCTGTGTCCCCCTGAGCCAGAGTGGTACTGCCCCAGCTGCCGAACCTGACTCCAGT
 GAGGTGGTACAAGCAGGGGAGAACTGAAGAAAAGCAAGAAGAAGGCAAAGATGGCGTCAGCCACTTCTCT
 CCTCCCGACGGGACTGGGGCAAGGGCATGGCATGTGTGGGCCGACCCACAGAGTGTACTATTGTACCGGC
 CAACCACTTCGGGCCATCCCTGGTGTCCCCGTGGGCACCATGTGGCGCTTCAGAGTCCAGGTGAGTGA
 TCCGGTGTGCATCGGCCACATGTGGCGGTATTTCATGGTTCGAGCAACGACGGTGCCTACTACTGGTGC
 TGGCTGGTGGCTATGAGGATGATGTGGATAATGGCAATTTCTTACCTACACGGGACAGTGGTGGCCGAGA
 CCTCTCTGGCAACAAGCGTACAGCGGGACAGTCCCTCTGACCAGAACTCACTAATAACAACAGGGCTCTG
 GCGCTCAATTGCCACTCCCAATCAATGAGAAAGGTGCGGAGGCTGAAGACTGGCCCGAGGTAAGCCGG
 TCGTGTGGTCCGGAACATGAAGGGAGGCAACATAGCAAGTACGCACCTGCAGAGGGGAACCGCTATGA
 TGGCATCTACAAGGTGGTCAAGTACTGGCCGGAGAAGGGGAAATCTGGCTTCATTGTGTGGCGCTATCTC
 CTTTCGACGGGATGACACTGAACCTGAGCCGTGGACTCGGGAGGGCAAGGACCCGCACTCGGCAGCTGGGCC
 TCACTATGCAGTATCCTGAAGGCTACTTGGAGGCTTGGCTAACAAAGGAGAAGAACAGGAAGCGCCCGGC
 CAAGGCCCTGGAGCAGGGACCATCATCTTCAAGATAGGCAAAAGCAAGCGGAAGTCCACAGGCCCGGCC
 ACCACAAGCCCCGTGTCTCCAAGAAGAGCAAGCTGGAGCCCTACACACTTCCATTGCAGCAGGCCAACC
 TCATCAAGGAGGACAAGGGCAACGCCAAGCTGTGGGATGACGTGCTGAGCTCCCTTCAGGATGGCCGTA
 CCAGATCTTCTGAGCAAGGTGAAGGAGGCTTCCAGTGCATCTGTTGCCAGGAGTTGGTGTCCGGCCA
 GTCACCACCGTGTGTGAGCACAACGTTTGTAAAGACTGCCTGGACAGGTCCTTCGTTGCCAGGTTTCA
 GCTGCCACGATGTGCTATGACCTGGACCACAGTCCCCAACCCGAGTGAATCAGCCCTTGCAGACCAT
 TCTCAACCAGCTTCTCCCTGGCTATGGCAGCGGCCGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR214841 representing NM_001008882
Red=Cloning site Green=Tags(s)

MESGIFGEGGSLPPLPVLLRGLQDLGLLGKLDIARRATLTGISLCFSVFLQHIGIMWIQVRTMDGKETHT
VNSLSRLTKVQELRKKIEELFHVEPQLQRLFYRGKQMEDGHTLFDYDVRLNDTIQLLVRQSLALPLSTKE
RDSSESDSGYGVGHSESDKSSTHGEGTADGDDKTVWEDTDLGLYKVNEYVDVRDNIFGAWFEAQVVQV
QKKALSEEEPCSSSAIMAPEDDIMYHIKYDDYPEHGVDIVKAKNVRARARTVIPWEDLEVGQVVMANYNV
DYPRKRGFWYDVEICRKRQTRTARELYGNVMLLNDSQLNNCRIIFVDEVLKIELPNERSPLIGSPSRRKS
GPSCQYCKDDENKPCRKCACHICGGREAPEKQVLCDECDMAFHL YCLQPPLTCVPPEPEWYCPSCRTDSS
EYVQAGEKLLKSKKKAKMASATSSSRDWDGKGMACVGRTECTIVPANHFGPIPGVPVGTMWFRVQVSE
SGVHRPHVAGIHGRSNDGAYSLVLAGGYEDDVNNGNFFTYTGSGGRDL SGNKRTAGQSSDQKLTNNRNL
ALNCHSPINEKGAEAEADWRQGPVRVVRNMKGGKHSKYAPAEGNRYDGIYKVVVYKWEKGGKSGFIVWRYL
LRRDDEPEPWTRREGKDRTRQLGLTMQYPEGYLEALANKEKNRKP AKALEQGPSSKIGKSKRKSTGPA
TTSPRVSKKSKLEPYTLPLQANLIKEDKGNAKLWDDVLSLQDGPYQIFLSKVKEAFQCCQELVFRP
VTTVCQHNVCCKDCLDRSFRAQVFS CPACRYDLDHSSPTRVNQPLQTILNQLFPGYGSGR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001008882

ORF Size: 2487 bp

OTI Disclaimer: 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_001008882.1](#), [NP_001008882.1](#)

RefSeq Size: 2536 bp

RefSeq ORF: 2490 bp

Locus ID: 316129

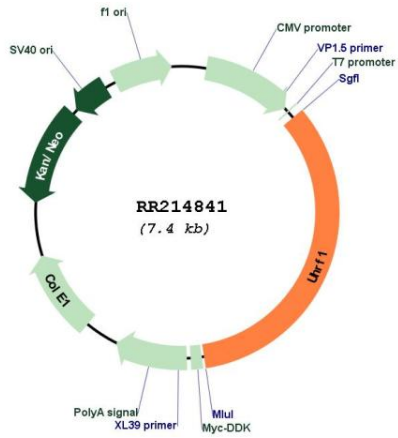
UniProt ID: [Q7TPK1](#)

Cytogenetics: 9q12

MW: 93.2 kDa

Gene Summary: Multidomain protein that acts as a key epigenetic regulator by bridging DNA methylation and chromatin modification. Specifically recognizes and binds hemimethylated DNA at replication forks via its YDG domain and recruits DNMT1 methyltransferase to ensure faithful propagation of the DNA methylation patterns through DNA replication. In addition to its role in maintenance of DNA methylation, also plays a key role in chromatin modification: through its tudor-like regions and PHD-type zinc fingers, specifically recognizes and binds histone H3 trimethylated at 'Lys-9' (H3K9me3) and unmethylated at 'Arg-2' (H3R2me0), respectively, and recruits chromatin proteins. Enriched in pericentric heterochromatin where it recruits different chromatin modifiers required for this chromatin replication. Also localizes to euchromatic regions where it negatively regulates transcription possibly by impacting DNA methylation and histone modifications. Has E3 ubiquitin-protein ligase activity by mediating the ubiquitination of target proteins such as histone H3 and PML. It is still unclear how E3 ubiquitin-protein ligase activity is related to its role in chromatin in vivo. May be involved in DNA repair (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR214841