

Product datasheet for RC223401

KDM4B (NM_015015) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KDM4B (NM_015015) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KDM4B
Synonyms:	JMJD2B; TDRD14B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC223401 representing NM_015015 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGGGTCTGAGGACCAGGGCGCCAGAACCCAGCTGTAAAATCATGACGTTTCGCCAACCATGGAAG
AATTTAAAGACTCAACAAATACGTGGCCTACATAGAGTCGAGGGAGCCACCGGGCGGGCTGGCCAA
GATCATCCCCCGAAGGAGTGAAGCCGCGGCAGACGTATGATGACATCGACGACGTGGTATCCCGGGC
CCCATCCAGCAGGTGGTACGGGCCAGTCGGCCCTCTTACGCAGTACAATATCCAGAAGAAGGCCATGA
CAGTGGGCGAGTACCGCCGCTGGCCAACAGCGAGAAGTACTGTACCCCGCGGCACCGAGACTTTGACGA
CCTTGAACGCAAATACTGGAAGAACCTCACCTTTGTCTCCCCGATCTACGGGGTACATCAGCGGCTCT
TTGTATGATGACGACGTGGCCAGTGGAACATCGGGAGCCTCCGGACCATCCTGGACATGGTGGAGCGCG
AGTGGCGCACCATCATCGAGGGCGTGAACACGCCCTACCTGTACTTCGGCATGTGGAAGACCACCTTCGC
CTGGCACACCGAGGACATGGACCTGTACAGCATCAACTACCTGCCTTTGGGGAGCCTAAGTCTGGTAC
GCCATCCCACAGAGCACGGCAAGCGCCTGGAGCGGCTGGCCATCGGCTTCTTCCCCGGGAGCTCGCAGG
GCTGCGACGCCTCCTGCGGCATAAGATGACCCTCATCTCGCCATCATCCTGAAGAAGTACGGGATCCC
CTTCAGCCGGATCACGAGGAGCCGGGAATTCATGATCACATTTCCCTACGGCTACCACGCCGGCTTC
AATCAGGGTTCAACTGCGCAGAATCTACCAACTTCGCCACCTGCGGTGGATTGACTACGGCAAAGTGG
CCTCAGTGCAGTGGCGGAAGGACATGGTCAAGATCTCCATGGACGTGTTCTGTCGCATCCTGCAGCC
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ACCAGCCCCGAGCTGAGCTCCTGGAGTGCCTCCGGGCCCTCGCTGAAGGCCAAGCTCCTCCGAGGTCTC
ACCGGAAACGGAGCCAGCCCAAGAAGCCGAAGCCGAAGACCCCAAGTCCCTGGGGAGGGTACGGCTGG
GGCAGCGCTCCTAGAGGAGGCTGGGGCAGCGTGAAGGAGGAGGCTGGGCCGGAGGTTGACCCCGAGGAG
GAGGAGGAGGAGCCGAGCCACTGCCACACGGCCGGGAGGCCGAGGGCGAGAAGAGGACGGGAGGGGCA
AGCTGCGGCCAACCAAGGCCAAGAGCGAGCGGAAGAAGAAGACTTCGGCTGCTGCCCCACAGCTGCC
GCCCGCGCTGCTCACTTCCCCTCAGAGGAGCGCTGTGGCTGCCATCCCCTGAGCCCGGGTCTGCT



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GGCCCAGGCCCTGCAGCCATGGAGGAGAGCCCCCTGCCGGCACCCCTTAATGTCGTGCCCCCTGAGGTGC
 CCAGTGAGGAGCTAGAGGCCAAGCCTCGGCCCATCATCCCATGCTGTACGTGGTGCCGCGGGCCGGCAA
 GGCAGCCTTCAACCAGGAGCAGCTGTCTGCCAGCAGGCCCTTTGAGCACTTTGCCAGAAGGGTCCGACC
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 TCGGGGAGGAGGCCAAGGCCGCAAGGCCCGCGTGTGGGCACCCCGTGTGCCAGGAGGACTCCGGGC
 GGAGCCAGGACTACGTGGCTTCGTGGAGAGCCTCTGCAGTGCAGGGCCGGCCGGAGCCCTTC

ACGCGTACGCGGGCCGTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223401 representing NM_015015
 Red=Cloning site Green=Tags(s)

MGSEDHGAQNPSCKIMTFRPTMEEFKDFNKYVAYIESQGAHRAGLAKIIPPKEWKPRQTYDDIDDVVIPA
 PIQQVVTGQSLFTQYNIQKKAMTVGEYRRLANSEKYCTPRHQDFDRLERKYWKNLTFVSPYIGADISGS
 LYDDDVAQWNIGSLRITLDMVERECGTIEGVNTPYL YFGMWKTTFAWHTEDMDLYSINYLHFGPEKSWY
 AIPPEHGKRLERLAIGFFPGSSQGCDAFLRHKMTLISPIILKKGIPFSRITQEAGEFMITFPYGYHAGF
 NHGFNCAESTNFATLRWIDYGVATQCTCRKDMVKISMDVFRILQPERVELWKQKDLTVLDHTRPTAL
 TSPELSSWSASRASLKAKLLRRSHRKRSPKPKPEDPKFPEGTAGAALLEEAGGSVKEEAGPEVDPEE
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 ASSDEEASPFSGEEDVSDPDALRPLL SLQWKNRAASFQAEKFNAAAARTEPYCAICTLFYPCQALQTE
 KEAPIASLGEGCPATLPSKSRQKTRPLIPEMCF TSGGENTEPLPANSYIGDDGTSPLIACGKCLQVHAS
 CYGIRPELVNEGWTCSRCAAHAWTAECCLCNLRGALQMTDRRWIHVICAIIVPEARFLNVIERHPVDI
 SAIPEQRWKLKCVYCRKRMKKVSGACIQCSYEHCSSTSFHVTCAHAAGVLMPEDDWPYVVSITCLKHKSGG
 HAVQLLRAVSLGQVVIITKNRNGLYYRCRVIGAASQTCYEVNFDGYSYDNLYPESITSRDCVQLGPPSEG
 ELVELRWTDGNLYKAKFISSVTSYIYQVEFEDGSQLTVKRGDIFLLEELPKRVR SRLSLSTGAPQEPAF
 SGEEAKAAKRPRVGTPLATEDSGRSQDYVAVFVSELLQVQGRPGAPF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN:

NM_015015

ORF Size:

3288 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: [NM_015015.1, NP_055830.1](#)

RefSeq Size: 5595 bp

RefSeq ORF: 3291 bp

Locus ID: 23030

UniProt ID: [O94953](#)

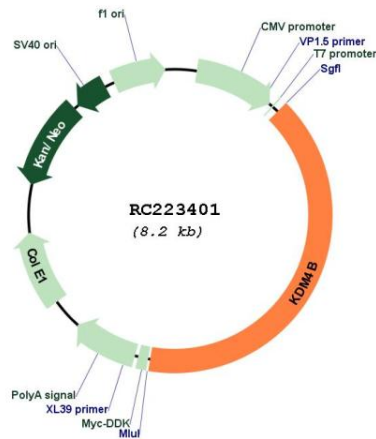
Cytogenetics: 19p13.3

Protein Families: Druggable Genome

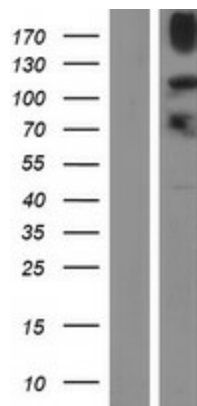
MW: 121.7 kDa

Gene Summary: Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a role in histone code. Does not demethylate histone H3 'Lys-4', H3 'Lys-27', H3 'Lys-36' nor H4 'Lys-20'. Only able to demethylate trimethylated H3 'Lys-9', with a weaker activity than KDM4A, KDM4C and KDM4D. Demethylation of Lys residue generates formaldehyde and succinate. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC223401



Western blot validation of overexpression lysate (Cat# [LY414852]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223401 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).