

Product datasheet for **MC223429**

Kdm4a (NM_001161823) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kdm4a (NM_001161823) Mouse Untagged Clone
Tag: Tag Free
Symbol: Kdm4a
Synonyms: D4ErtD222e; JHDM3A; Jmjd2; Jmjd2a; mKIAA0677
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223429 representing NM_001161823
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTTCTGAATCAGAACTTTGAACCCAGTGCTCGGATCATGACCTTTACCCACCATGGAAGAGT
 TCCGGAACCTCAGCCGCTACATTGCCTACATTGAATCCCAAGGAGCTCATCGGGTGGGCTAGCCAAGT
 CGTTCCCTCCAAAGAGTGAAGCCTCGAACATCCTACGACGATATTGATGATCTAGTCATCCCTGCGCC
 ATCCAGCAGCTGGTGACTGGCCAGTCTGGCCTTCTCACTCAGTACAACATACAGAAGAAAGCCATGACCG
 TTCGTGAGTTCGCAAGATCGCCAATAGCGACAAGTACTGCACCCCGGATACAGTGAATTTGAAGAACT
 TGAGCGTAAATACTGGAAAAACCTCACATTCAATCCTCCCATCTATGGAGCAGACGTGAATGGTACTCTC
 TATGAACAGCACGTTGATGAGTGAATATCGGCCGGCTGAAGACCATCCTGGACCTGGTGGAGAAGGAGA
 GCGGGATCACCATTGAGGGGGTGAACACCCCTACCTTACTTCGGCATGTGGAAGACGCTCCTTCGCCTG
 GCACACGGAAGACATGGATCTATACAGCATCAACTATCTGCACCTCGGAGAGCCAAAGTCTTGGTACTCT
 GTTCCACCTGAGCATGGGAAACGCCTGGAGCGTCTTGCCTAAAGGCTTTTCCAGGAAAGTCTCAAAGT
 GTGAGGCTTTTCCGCCACAAGATGACCCTGATCTCCCATTAATGCTGAAGAAGTATGGCATCCCTT
 TGACAAGGTGACCAAGAAGCTGGCGAGTTTATGATCACTTTTCCGTATGGTTACCATGCTGGCTTCAAC
 CATGGCTTCAACTGTGCAGAGTCAACCAATTTTGTACCCGTCGGTGGATTGAGTATGGCAAGCAGGCTG
 TGCTGTGCTCCTGCAGAAAAGATATGGTGAAGATCTCCATGGACGTGTTTCGTGAGGAGTTCCAGCCGGA
 ACGCTACAAACTTTGAAAGCTGGGAAGGACAGCATGGTTATTGACCACACTCTGCCACACCCGGAAGCA
 GCCGAGTTCCTGAAGGACAGCGGCGACTAACCCCGAGAGCAGGGAGTGAGGAGTGCCAGAGGAGGACG
 TGAAGCAGCGGATCAGGAGAGGAGGGGGATGTGAAGAGAAGCCTGGCCAAGCATCGGATCGGGACAAA
 GAGACACAGAGTCTGTCTGAAAATACCCAGGAGGTGAGTCAAGAGCGAGCTCTTCCCAAGGAAGAGCTA
 AGTTCTGGACAGTATGAGATGACAGAGTGCCCGGCCACCTCGCCAGTGAGGCCACCCACAGCTCCG
 TGCGGCAAGTTGAGGACAGTCTTCCCTCCAGATTACTCTGACCCCACTGAAGTCAAATTTGAAGAGCT
 GAAGAATGTCAAAGTGAAGAGGAAGATGAGGAGGATGAGCCCAAGCAGCCGACTGGACCTTTCTGTG
 AATCCTGCGTCTGTAGGAGGACGCTCGTCTTCTCGGGTCCAAAAGAAATCATCTTCCAGCCTGGCT



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CCACTTCATCTCAGGATTCAGTTTCTTCAGATTCTGAAACCGCCGAGTCTGTCTCTTGCCAGGGCCAAGA
GAAAACGGGAGTTCTCACCGTGCACAGCTATGCCAGAGGGGACGGCAAGGCTGCCACAGGAGAGCCGAGT
GTGAAGAAGAAGCGCAGTGTCTCCCGCAGCATCAGCGAGCAGGAGCTGGCAGAGGTTGCAGATGAGTACA
TGCTTTCCCTGGAGGAGAATAAGAAGACCAAGGGTCGCCGCCAGCCCTTGAGCAAGCTCCCACGCCACCA
CCCCTCGTGTGCAGGAGTGCCGCAGCGATGACGAGACTTCTGAGCAGCTGACCCCGAGGAGGAGGCT
GAGGAGACAGAGGCTTGGCCAAAGCCTCTGAGCCAGCTGTGGCAGAACCACCCCGAACTTTGAGGCTG
AAAAGGAATTCATGAGATCATGGCCCAACAGGCCCTCACTGTGCTGTGTATGATCTTCCAGACCTA
CCATCAGGTGGAATTTGGAGCCTTCAGTCAGAGCTGTGGGGATGCTTCAGAGCCGGCTGCCAGACTCAG
AGGACCAAGCCACTGATCCCGAAATGTCTTTACCACCACTGGCTGCAGCACAGACATCAATCTGTCCA
CCCCGTACCTAGAGGAGGATGGCACCAGCATGCTAGTGTCTGCAAGAAGTGCAGTGTCCGGGTCCACGC
CAGTTGCTATGGCGTCCCTCCTGCCAAGGCTTCTGAAGAATGGATGTGCTCTCGATGTTCCAGCAATGCC
CTGGAGGAAGACTGCTGCTTATGCTCGTTGCGTGGAGGGGCCCTGCAGAGAGCCAATGACGACAGATGGG
TTCATGTTTCATGTGCAGTGGCAATCTAGAAGCAAGGTTGTCAACATTGCTGAAAGAAGTCCAGTGA
TGTGAGCAAAATCCCTCTGCCCCGCTTCAAAGTGAAGTGTGTTTTTTGTAAGAAGCGGAGAAAACGGAAT
GCTGGCTGCTGTGTGCAGTGTCTCCATGGCCGCTGCCCACTGCCTTCCATGTGAGCTGTGCCAGGCTG
CTGGGGTGATGATGCAACCCGACGACTGGCCCTTTGTTGTCTTATCACGTGCTCCGTCAAAAGATTCC
CAATCTGGAGCGTGCTAAGGGAGCCTTGCTGAGCATCACGGCGGGCCAGAAGGTTATCAGCAAACACAAG
AACGGGCGCTTCTACCAGTGTGAGGTGGTCCAGACTCACCACCGAGACCTTCTACGAAGTCAACTTTGACG
ACGGCTCCTTCAGTGACAACCTTATCCTGAGGACATAGTGAGTCAGGACTGTCTCAACTGGGGCTCC
TGCTGAAGGTGAAGTGGTTCAAGTCAGATGGACAGATGGCCAAGTCTATGGGGCTAAGTTTGTGGCTCC
CACCCCATCCAGATGTACCAGGTGGAGTTTGGAGTGGCTCGCAGCTGGTGGTTAAGAGAGATGATGAT
ACACACTCGATGAAGAGCTTCCCAAGAGAGTCAAGTCTAGACTGTGCGTGGCTTCCAGACATGCGCTTCAA
TGAGATTTTACAGAGAAGGAAGTGAAGCAAGAAAAGAAGAGGCAACGGGTCATCAACTCGCGGTACCGG
GAGGATTACATCGAGCCAGCGCTGTACCGGCCATCATGGAGTAG
    
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

SgfI-MluI

ACCN:

NM_001161823

Insert Size:

3195 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](#)

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_001161823.1](#), [NP_001155295.1](#)

RefSeq Size: 4616 bp

RefSeq ORF: 3195 bp

Locus ID: 230674

UniProt ID: [Q8BW72](#)

Cytogenetics: 4 54.31 cM

Gene Summary: Histone demethylase that specifically demethylates 'Lys-9' and 'Lys-36' residues of histone H3, thereby playing a central role in histone code (PubMed:24953653). Does not demethylate histone H3 'Lys-4', H3 'Lys-27' nor H4 'Lys-20'. Demethylates trimethylated H3 'Lys-9' and H3 'Lys-36' residue, while it has no activity on mono- and dimethylated residues. Demethylation of Lys residue generates formaldehyde and succinate. Participates in transcriptional repression of ASCL2 and E2F-responsive promoters via the recruitment of histone deacetylases and NCOR1, respectively (By similarity).[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.