

Product datasheet for **MG221564**

Kdm4a (NM_001161823) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kdm4a (NM_001161823) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Kdm4a
Synonyms: D4ErtD222e; JHDM3A; Jmjd2; Jmjd2a; mKIAA0677
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG221564 representing NM_001161823
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTTCTGAATCAGAACTTTGAACCCAGTGCTCGGATCATGACCTTTACCCACCATGGAAGAGT
 TCCGGAACCTCAGCCGTACATTGCCTACATTGAATCCCAAGGAGCTCATCGGGCTGGGCTAGCCAAGGT
 CGTTCCTCCAAAGAGTGAAGCCTCGAACATCCTACGACGATATTGATGATCTAGTCATCCCTGCGCC
 ATCCAGCAGCTGGTGACTGGCCAGTCTGGCCTCTCACTCAGTACAACATACAGAAGAAAGCCATGACCG
 TTCGTGAGTTCGCAAGATCGCCAATAGCGACAAGTACTGCACCCCGCGATACAGTGAATTTGAAGAACT
 TGAGCGTAAATACTGGAAAAACCTCACATTCAATCCTCCCATCTATGGAGCAGACGTGAATGGTACTCTC
 TATGAACAGCACGTTGATGAGTGAATATCGGCCGGCTGAAGACCATCCTGGACCTGGTGGAGAAGGAGA
 GCGGGATCACCATTGAGGGGGTGAACACCCCTACCTTTACTTCGGCATGTGGAAGACGTCTTCGCTG
 GCACACGGAAGACATGGATCTATACAGCATCAACTATCTGCACCTCGGAGAGCCAAAGTCTTGGTACTCT
 GTTCCACCTGAGCATGGGAAACGCTGGAGCGTCTTGCCAAAGGCTTTTTCCAGGAAGTCTCAAAGCT
 GTGAGGCTTTTCTCCGCCACAAGATGACCCTGATCTCCCATTAATGCTGAAGAAGTATGGCATTCCCTT
 TGACAAGTGACCAAGAAGCTGGCGAGTTTATGATCACTTTTCCGTATGGTTACCATGCTGGCTTCAAC
 CATGGCTTCAACTGTGCAGAGTCAACCAATTTTGCTACCCGTCGGTGGATTGAGTATGGCAAGCAGGCTG
 TGCTGTGCTCCTGCAGAAAAGATATGGTGAAGATCTCCATGGACGTGTTGTTGAGGAGGTTCCAGCCGGA
 ACGCTACAAACTTTGAAAGCTGGGAAGGACAGCATGGTTATTGACCACACTCTGCCACACCCGGAAGCA
 GCCGAGTTCCTGAAGGACAGCGCGGACTAACCCCGAGAGCAGGGAGTGAGGAGTGCCAGAGGAGGACG
 TGAAGCAGCGGATCAGGGAGAGGAGGGGATGTGAAGAGAAGCCTGGCCAAGCATCGGATCGGGACAAA
 GAGACACAGAGTCTGTCTGAAAATACCCAGGAGGTGAGTCAAGAGCAGCTCTTCCCAAGGAAGAGCTA
 AGTTCTGGACAGTATGAGATGACAGAGTGCCCGGCCACCTCGCCCCAGTGAGGCCACCCACAGCTCCG
 TGCGGCAAGTTGAGGACAGTCTTCCCTCCAGATTACTCTGACCCACTGAAGTCAAATTTGAAGAGCT
 GAAGAATGTCAAAGTAGAAGAGGAGATGAGGAGGATGAGCCGAAGCAGCCGACTGGACCTTTCTGTG



[View online »](#)

```
AATCCTGCGTCTGTAGGAGGACGCCTCGTCTTCTCGGGTTCCAAAAGAAATCATCTTCCAGCCTGGGCT
CCACTTCACTCAGGATTCAGTTTCTTCCAGATTCTGAAACCGCCGAGTCTGTCTTCCAGGGCCAAGA
GAAAACGGGAGTTCTCACCGTGCACAGCTATGCCAGAGGGGACGGCAAGGCTGCCACAGGAGAGCCGAGT
GTGAAGAAGAAGCGCAGTGTCCCCGCAGCATCAGCGAGCAGGAGCTGGCAGAGGTTGCAGATGAGTACA
TGCTTTCCCTGGAGGAGAATAAGAAGACCAAGGGTCGCCGCCAGCCCTTGAGCAAGCTCCCACGCCACCA
CCCCTCGTGTGCAGGAGTGGCCAGCCTCTGAGCCAGCTGTGGCAGAACCACCCCGAAGCTTTGAGGCTG
GAGGACAGAGGCTTGGCCAAAGCCTCTGAGCCAGCTGTGGCAGAACCACCCCGAAGCTTTGAGGCTG
AAAAGGAATTCATGAGATCATGGCCCAACAGGCCCTCACTGTGCTGTGTATGATCTTCCAGACCTA
CCATCAGGTGGAATTTGGAGCCTTCAGTCAGAGCTGTGGGGATGCTTCCAGAGCCGGCTGCCAGACTCAG
AGGACCAAGCCACTGATCCCCGAAATGTGCTTTACCACCACTGGTGCAGCACAGACATCAATCTGTCCA
CCCCGTACCTAGAGGAGGATGGCACCAGCATGCTAGTGTCTGCAAGAAGTGCAGTGTCCGGGTCCACGC
CAGTTGCTATGGCGTCCCTCCTGCCAAGGCTTCTGAAGAATGGATGTGCTCTCGATGTTCCAGCAATGCC
CTGGAGGAAGACTGCTGCTTATGCTCGTTGCGTGGAGGGGCCCTGCAGAGAGCCAATGACGACAGATGGG
TTCATGTTTCATGTGCAGTGGCAATTCTAGAAGCAAGGTTTGTCAACATTGCTGAAAGAAGTCCAGTGGA
TGTGAGCAAAATCCCTCTGCCCGCTTCAAAGTGAAGTGTGTTTTTGTGAAGAAGCGGAGAAAACGGAAT
GCTGGCTGCTGTGTGCAGTGTCCCATGGCCGCTGCCCACTGCCTTCCATGTGAGCTGTGCCAGGCTG
CTGGGGTGATGATGCAACCCGACGACTGGCCCTTTGTTGTCTTACATCACGTGCTTCCGTCACAAGATTCC
CAATCTGGAGCGTGCTAAGGGAGCCTTGCTGAGCATCACGGCGGGCCAGAAGGTTATCAGCAAACACAAG
AACGGGCGCTTCTACCAGTGTGAGGTGGTCCAGACTCACCACCGAGACCTTCTACGAAGTCAACTTTGACG
ACGGCTCCTTCAGTGACAACCTTATCCTGAGGACATAGTGAGTCCAGGACTGTCTCCAAGTGGGGCTCC
TGCTGAAGGTGAAGTGGTTCAAGTCAGATGGACAGATGGCCAAGTCTATGGGGCTAAGTTTGTGGCCTCC
CACCCCATCCAGATGTACCAGGTGGAGTTTGGAGTGGCTCGCAGCTGGTGGTTAAGAGAGATGATGAT
ACACACTCGATGAAGAGCTTCCCAAGAGAGTCAAGTCTAGACTGTGCGGTGCTTCCAGACATGCGCTTCAA
TGAGATTTTCCAGAGAGAAGGAAGTGAAGCAAGAAAAGAAGAGGCAACGGGTCATCAACTCGCGGTACCGG
GAGGATTACATCGAGCCAGCGCTGTACCGGCCATCATGGAG
```

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG221564 representing NM_001161823
 Red=Cloning site Green=Tags(s)

```
MASESETLNPSARIMTFYPTMEEFRNFSRYIAYIESQGAHRAGLAKVVPKWKPRTSYDDIDDLVIPAP
IQQLVLTGQSLFTQYNIQKAMTVREFRKIANSDKYCTPRYSEFEELERKYWKNLTFNPPYIYADVNGTL
YEQHVDEWNIQRLKILDLVEKESGITIEGVNTPYL YFGMWKTSFAWHTEDMDLYSINYLHFGEKSWYS
VPPEHGKRLERLAKGFFPGSAQSCEAFLRHKMTLISPLMLKKGIPFDKVTQEAGEFMITFPYGYHAGFN
HGFNCAESTNFAARRWIEYKQAVL CSCRKDMVKISMDVFRRFQPERYKLVKAGKDSMVIDHTLPTPEA
AEFLKDSGGLTPRAGSEECPEEDVEAADQGEEDVVKRSLAKHRIGTKRHRVCLIPQEVSQSELPKEEL
SSGQYEMTECPATLAPVRPTHSSVRQVEDSLPFPDYSDPTEVKFEELKNVKLEEEDEEPEAAALDL SV
NPASVGGRLVFSGSKKSSSSLGSTSSQDSVSSDSETAESVSCQGQEKTVLTVHVSARGDGAATGEP S
YKKKRSAPRSISEQELAEVADEYMLSLEENKTKGRRQPLSKLPRHPLVLQECGSDDETSEQLTPEEEA
EETEAWAKPLSQLWQNRPPNFEAEKEFNEIMAAQAPHCAYCMIFQTYHQVEFGAFSQSCGDASEPAAQTQ
RTKPLIPEMCFTTTGCSTDINLSTPYLEEDGTSMLVSCCKCSVRVHASCYGVPPAKASEEWMCSRCSANA
LEEDCCLCSLRGGALQRANDRWVHSCAVAILERFVNIAERSPVDVSKIPLPRFKLKCVCCKRRRKRN
AGCCVQCSHGRCPTAFHVSCAQAAGVMMQPDWPFVVFITCFRHKIPNLERAKGALLSITAGQKVISKHK
NGRFYQCEVVRLTTETFEVNFDDGSFSDNLYPEDIVSQDCLQLGPPAEGEVVQVRWTDGQVYGAKFVAS
HPIQMYQVEFEDGSQLVVKRDDVYTLDEELPKRVKSRLSVASDMRFNEIFTEKEVKQEKKRQRVINSRYR
EDYIEPALYRAIME
```

TRTRPLE - GFP Tag - V

Restriction Sites:

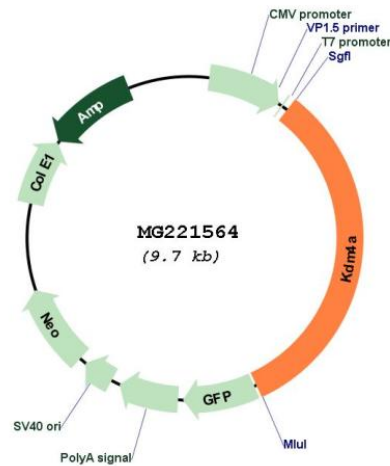
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001161823
 ORF Size: 3192 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:	<ol style="list-style-type: none"> 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]