

Product datasheet for MR211491

Kdm4a (NM_172382) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kdm4a (NM_172382) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kdm4a
Synonyms:	D4ErtD222e; JHDM3A; Jmjd2; Jmjd2a; mKIAA0677
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR211491 representing NM_172382 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTTCTGAATCAGAACTTTGAACCCAGTGCTCGGATCATGACCTTTACCCACCATGGAAGAGT
TCCGGAACCTCAGCCGCTACATTGCCTACATTGAATCCCAAGGAGCTCATCGGGTGGGCTAGCCAAGT
CGTTCCCTCCAAAGAGTGAAGCCTCGAACATCCTACGACGATATTGATGATCTAGTCATCCCTGCGCC
ATCCAGCAGCTGGTGACTGGCCAGTCTGGCCTTCTCACTCAGTACAACATACAGAAGAAAGCCATGACCG
TTCGTGAGTTCGCAAGATCGCCAAATAGCGACAAGTACTGCACCCCGGATACAGTGAATTTGAAGAACT
TGAGCGTAAATACTGGAAAAACCTCACATTCAATCCTCCCATCTATGGAGCAGACGTGAATGGTACTCTC
TATGAACAGCAGCTTGTGAGTGAATATCGGCCGGCTGAAGACCATCCTGGACCTGGTGGAGAAGGAGA
GCGGGATCACCATTGAGGGGGTGAACACCCCTACCTTACTTCGGCATGTGGAAGACGTCTTCGCCTG
GCACACGGAAGACATGGATCTATACAGCATCAACTATCTGCACCTCGGAGAGCCAAAGTCTTGGTACTCT
GTTCCACCTGAGCATGGGAAACGCCTGGAGCGTCTTGCCTAAAGGCTTTTCCAGGAAGTCAAAAGT
GTGAGGCTTTTCCGCCACAAGATGACCCTGATCTCCCATTAATGCTGAAGAAGTATGGCATTCCCTT
TGACAAGGTGACCAAGAAGCTGGCGAGTTTATGATCACTTTTCCGTATGGTTACCATGCTGGCTTCAAC
CATGGCTTCAACTGTGCAGAGTCAACCAATTTGCTACCCGTCGGTGGATTGAGTATGGCAAGCAGGCTG
TGCTGTGCTCCTGCAGAAAAGATATGGTGAAGATCTCCATGGACGTGTTTCGTGAGGAGTTCCAGCCGGA
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GCCGAGTTCCTGAAGGACAGCGGCGACTAACCCGAGAGCAGGGAGTGAGGAGTGCCAGAGGAGGACG
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GAGACACAGAGTCTGTCTGGAATACCCAGGAGGTGAGTCAAGAGCGAGCTCTTCCCAAGGAAGAGCTA
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GAAGAATGTCAAAGTGAAGAGGAAGATGAGGAGGATGAGCCGAAGCAGCCGACTGGACCTTTCTGTG
AATCCTGCGTCTGTAGGAGGACGCTCTTCTCGGGTCCAAAAGAAATCATCTTCCAGCCTGGCT



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CCACTTCATCTCAGGATTCAGTTTCTTCAGATTCTGAAACCGCCGAGTCTGTCTCTTCCAGGGCCAAGA
 GAAACCGGAGTTCTCACCGTGCACAGCTATGCCAGAGGGGACGGCAAGGCTGCCACAGGAGAGCCGAGT
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ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211491 representing NM_172382
 Red=Cloning site Green=Tags(s)

MASESETLNPSARIMTFYPTMEEFRNFSRYIAYIESQGAHRAGLAKVVPKKEWKPRTSYDDIDDLVIPAP
 IQQLVTGQSGLFTQYNIQKAMTVREFRKIANSKYCTPRYSEFEELERKYWKNLTFNPPYIYADVNGTL
 YEQHVDEWNIIGRLKTIIDLVEKESGITIEGVNTPYL YFGMWKTSFAWHTEDMDLYSINYLHFGEPKSWYS
 VPPEHGKRLERLAKGFFPGSAQSCEAFLRHKMTLISPLMLKKYGIPFDKVTQEAGEFMITFPYGYHAGFN
 HGFNCAESTNFATRRWIEYKQAVLCSCRKDMVKISMDVFRRFQPERYKLVKAGKDSMVIDHTLPTPEA
 AEFLKDSGGLTPRAGSEECPEEDVEAADQGEEDVKRSLAKHRIGTKRHRVLCLEIPQEVSSQSELPKEEL
 SSGQYEMTECPATLAPVRPTHSSVRQVEDSLPFPDYSDPTEVKFEELKNVKLEEEDEDEPEAAALDLSV
 NPASVGGRLVFSGSKKSSSSLGSTSSQDSVSSDSETAESVSCQGQEKTVLTVHSYARGDGKAATGEP
 VKKRSAPRSISEQELAEVADEYMLSLEENKTKGRRQPLSKLPRHPLVLQECGSDDETSEQLTPEEEA
 EETEAWAKPLSQLWQNRPPNFEAEKEFNEIMAQQAPHCAVCMIFQTYHQVEFGAFSQSCGDASEPAAQTQ
 RTKPLIPEMCFTTTGCSTDINLSTPYLEEDGTSMLVSCKKCSVRVHASCYGVPPAKASEEWMCSRCSANA
 LEEDCCLCSLRGGALQRANDRWVHVS CAVAILEARFVNIAERSPVDVSKIPLPRFKLKCVFCKRRRKN
 AGCCVQCSHGRCPTAFHVSCAQAAGVMMQPDWPFVVFITCFRHKIPNLERAKGALLSITAGQKVISKHK
 NGRFYQCEVVRLTTETFYEVNFDDGSFSDNLYPEDIVVMSESGFWQHFSGTSSCYRLDDCGLFACPWS
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

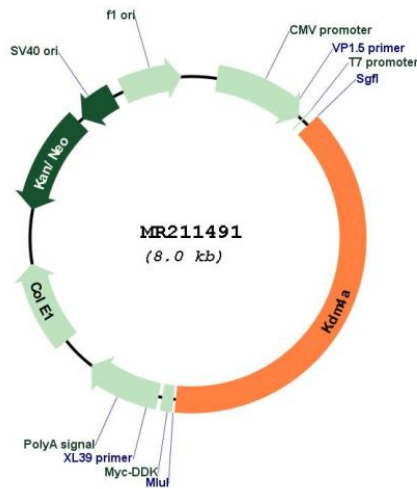
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_172382

ORF Size:

3099 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:	<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_172382.2 , NP_759014.2
RefSeq Size:	3376 bp
RefSeq ORF:	3102 bp
Locus ID:	230674
UniProt ID:	Q8BW72
Cytogenetics:	4 54.31 cM
MW:	116.4 kDa
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]