

Product datasheet for MC224231

Kdm3a (NM_001038695) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Kdm3a (NM_001038695) Mouse Untagged Clone
Tag: Tag Free
Symbol: Kdm3a
Synonyms: 1700105C21Rik; C230043E16Rik; JHDM2a; Jmjd1; Jmjd1a; KDM2A; TGSA; Tsga
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224231 representing NM_001038695
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGTGCTCAGCTCGGAGAAAGTTGGCCAGTATTGGTGGGAAGCGATTCTCAGTCTGTCCGAGCCG
 AAGGCAACGAAGGCGCCAGGACAACCTGGGACTTGGAGCGGTTGCCAGTGGCCCTGGCTGTCCGGGAC
 CATTTCGAGCTGTTCCACACCCAGCTTACTAAGAAAGACTTGAAGGTGTGTGGAGTTTATGAGGAGGAT
 TCTTGGAGAAAGAGAAGATGGATAGATGTCTACAGCCTTCAGAGAAAAGCATTTCAGTAGAGCATAACC
 TGGTTTTGGCAGAACGAAAATCACCTGAAGTTCCTGAGCAAGTTATTCAGTGGCCTGCAATAATGTACAA
 ATCTCTCTAGACAAAGCTGGCTTGGGAGCCATAAATTCTGTTCCGTTTCTTGGAGATCAACAAAGTGTA
 TTTGTTCCAAAGACCTTTTGAACCTATACAGGATGTTAACAGTCTTCGGCTTCCCTTACTGATAATC
 AGACAGTCAGTAAGGAATTTCAAGCTTTGATTGTAAAACATTTGGATGAAAGCCATCTTTTACAAGGTGA
 CAAGAACCTTGTGGTTCAGAAGTAAAAATTTAGCTTGGACCCATCTACTCAGTGGTTTTTCAGCAACT
 GTTGTACATGGAACCCATCATCCAAAACCTTCAAGTCAACTGTGAGGAGATTCAGCACTGAAAATG
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 TGGAGCTGTAACGCAAGTCTTCTGAGAATAACGGAAGTTCGGTTTCTAAACAAGCAAAAATCTTGTCT
 GAGGCCTCTCCAGTATGTGCTGTACAGTCTGTTCCACAACAGTGTTAAGGAGATCTGCTTGGCT
 GACTGCAGCAACTCCATCTAGCAAGGACCCAAGACAGCAAAATACTCCCGAGGAGCAATTCCTCCACC
 TAACATTGGAGCAAACTTCTCAAGGATGTCATAAGCAGAACTTACCAGAAGAACTTCTTCTCTGTCTA
 AACACAAAACCTGAAGTACCGAGAACAAAACCAGATGTCTGCAAAGAAGGATTACTTTCTCAAAATCTT
 CTCAGGTTGGAGCTGGAGACTTGAATTTCTGAGTGGCCAAAGGTAGCTGTATCCAGCCTAAAACAAA
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 GCAAAGACTTCTCTAAGGCAGAACTGGACATTGCCACCCTCTGAACTGCAGAAGCATCTAGAACATG
 CAGCTTCCACATCCGATGACCTTTCAGATAAGCCAGAAGTGAAGCAGGTGTCACTAGCCTTAATAGTTG
 TGCAGAAAAGAAGGTCGAACCTTCAATTTAGGTTCCAGTCACAGAATTTAAAGGAAAATTCAGTAAAA
 GTAGATAATGAAAGCTGTTGTACAAGAAGCAGTAATAAAACCAGACTCCCCAGCCCGAAGTCAGTTT



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TGACAGACCCAGATAAAAGTCAGGAAGCTGCAGCAGAGCGGAGAGGCCTTTGTTTCAGGATGACTCCTGTGT
 TAACATCGTGGCACAGCTGCCAAGTGTGCGGAGTGTGCGACTAGACAGCCTGCGCAAGGATAAAGGACCAG
 CAGAAGGACTCTCCTGTGTTTTGTGCGTTTTTCCACTTCAGGAGATTACAATCAACAAGCATGGTGTGT
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 CAAAAATGTTGTGGGACTGATTTGGACACAGCAAAATATCCTGGCCAATATTGGAGACCACTTCTGT
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 CTGTCAAAGGAGTTAGAGAAATGTGTGATGTGTGACACAACCATTTTCAACCTGCACCTGGGTGTGCC
 TCGGTGTGGGTTTTGGAGTATGTGTAGATTGCTACCGGATGAAGAGGAAGAACTGCCAACAGGGTGTGCC
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 AGATTATCTGCGCAAAGCCCTCTACGATGTTGGAGACATTGTGCATTCTGTGAGAGCAAAATGGGGCAT
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 CACTTCACCTTTAACTGGCTAGCTGACCTTACCAGTGGGAATGTCAACAAGGAGAATAAGGAAAAACAG
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 CAGTCCCTCATACTTTTAAACAGCACCATCTTGACACCTGTGAGCAACAATAATTCAGTTTCCCTTAGAAA
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 TTTGCCTCTTTGGTGCAAAAAGACTTCTTCTGATTTCATCCAAGAGGCCTCAAGGACTGACAATCAAGC
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 CCGCCAGGAGAAGACTTCAGAGACATGATGCCTTCCAGGTTTGTGATCTGATGGCCAACATTCCTACTGC
 CTGAGTACACCAGGCGAGATGGCAAACCTGAACCTGGCTTCCAGACTGCCAAACTACTTTGTACGGCCAGA
 CCTGGGCCCAAGATGTACAATGCTTATGGATTGATCACTCCAGAGGATCGGAAATATGGGACCACAAAT
 CTTCACTTAGATGTATCTGATGCAGCCAATGTCATGGTTTATGTGGGAATCCCAAAGGACAGTGTGAAC
 AAGAAGAAGAAGTCCTTAGAACCATCCAAGATGGAGATTCTGATGAACTCACAATCAAGAGATTTATTGA
 AGGAAAAGAGAAGCCAGGAGCCCTTTGGCACATATATGCTGCTAAAGACACAGAGAAGATAAGAGAATTC
 CTTAAAAAGGTATCAGAGGAGCAGGGTCAAGACAACCTGCAGACCATGACCCTATCCACGATCAGAGCT
 GGTATTTAGACCGATCGCTGAGAAAGCGCCTCTATCAAGAGTACGGCGTGAAGGCTGGGCTATTGTACA
 GTTTCTTGGGGATGTGGTGTATCCCAGCAGGAGCGCCACATCAGGTTTATAACTTATACAGCTGTATC
 AAAGTGGCTGAAGACTTTGTGTCTCCAGAGCATGTTAAACACTGCTTCTGGCTTACTCAGGAATCCGTT
 ACTTGTACAGACTCATACCAACCATGAAGATAAATTGCAGGTGAAAAATGTTATCTACCATGCAGTGAA
 AGATGCAGTTGCTATGCTGAAAGCCAGTGAATCCAGTTTGGGCAAACCTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001038695
- Insert Size:** 3972 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_001038695.3](#), [NP_001033784.2](#)

RefSeq Size: 4830 bp

RefSeq ORF: 3972 bp

Locus ID: 104263

UniProt ID: [Q6PCM1](#)

Cytogenetics: 6 C1

Gene Summary: Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Preferentially demethylates mono- and dimethylated H3 'Lys-9' residue, with a preference for dimethylated residue, while it has weak or no activity on trimethylated H3 'Lys-9'. Demethylation of Lys residue generates formaldehyde and succinate. Involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes, resulting in H3 'Lys-9' demethylation and transcriptional activation (By similarity). Involved in spermatogenesis by regulating expression of target genes such as PRM1 and TNP1 which are required for packaging and condensation of sperm chromatin (PubMed:17943087). Involved in obesity resistance through regulation of metabolic genes such as PPARA and UCP1.[UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1, 2, and 3 all encode the same isoform (a).