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Product datasheet for MC204131

Kdm8 (NM_029842) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kdm8 (NM_029842) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kdm8
Synonyms:	3110005O21Rik; Jmjd5
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

Fully Sequenced ORF:

>BC024807
CTCGGTGTAGTCGGTGATAAAGCCAGCCGAAGAATCTTCGCCCGGACGGAACCAGTCGTCGCCAGCAACG
AGAGACACAAACAAGTCCAAGCGCCAGAGAGGTGCTGATCATGTCAGAGGACACCACAGAGCCCCTGGTG
GGGTCCAGCACCCTCTGGAAGGAGCTCAGGACGCTCCTGCCTGACAAAGAGGAGGAGCTGAAGCTGGACC
TCGGTGAGAAGGTGGACAGGAGCGTGGCTGCGCTTTTGCGGCAGGCTGTGGGTCTATTCTACGCGGGCCA
TTGGCAGGGGTGCCTGCAGGCCAGTGAGGCCGTCCTAGACTACTCCTGGGAAAAGCTCAACACTGGTCCC
TGGAGAGATGTAGACAAGGAGTGGCGCCGGGTATATTCCTTCGGCTGCCTCCTGAAGGCCCTGTGCCTGT
GCCAGGCACCACAGAAGGCCACTACTGTGGTGGAAGCACTGCGGGTGTGTGACATGGGCCTGTTGATGGG
GGCAGCCATCCTCGAGGACATTCTTCTCAAAGTTGTCGCAGTCCTCCAGACACACCAGCTCCCAGGAAAG
CAGCCTGCCCGCGGCCCCCACCAGGATCAGCCTGCCACCAAGAAGGCAAAGTGTGACGCCAGCCCAGCTC
CTGATGTCATGTTAGAGCGGATGGTACCCAGGCTCCGCTGCCCACCTCTGCAGTACTTCAAGCAGCATTT
TCTAGTTCCTGGGAGGCCTGTGATCTTGGAAGGTGTGGCCGACCACTGGCCGTGCATGAAGAAGTGGAGT
CTGCAGTACATCCAGGAGATTGCTGGCTGCCGCACCGTCCCCGTGGAAGTGGGCTCAAGGTACACAGATG
AAGACTGGTCCCAGACTCTCATGACAGTCGATGAGTTCATCCAGAAGTTCATCCTGAGCGAGGCAAAGGA
TGTCGGGTACCTTGCTCAGCACCAGCTCTTCGACCAGATCCCAGAGTTGAAGCGGGACATCAGCATCCCT
GATTACTGTTGCCTGGGCAATGGAGAAGAGGAAGAGATCACTATCAATGCCTGGTTTGGTCCACAAGGCA
CCATCTCCCCACTGCATCAGGACCCCCAGCAGAACTTCCTGGTCCAGGTGCTAGGAAGGAAGTACATCCG
ATTGTATTCGCCGCAAGAGTCTGAGGCAGTGTACCCTCACGAGACGCACATTCTTCATAACACCAGCCAG
GTTGATGTGGAAAACCCCGACCTTGAGAAGTTTCCCAAGTTCACTGAGGCCCCATTCCTGTCCTGCATTC
TGTCCCCAGGAGACACCCTCTTTATACCTGCTAAGTACTGGCATTATGTGCGCTCCCTGGACCTGAGCTT
CTCTGTCAGCTTCTGGTGGTCATAGCTAGGACCAGACTGGAAAGGACCTCTGGGCAGACACCTTACCCAA
AGGCAGTAAACCAAGTGTCAGTGTGGGCCCTGCATGCCGCTAGACTCCAGCAGCCCTGCCCCCAGCCAAT
GTCTGTTGTGTGACAGAGCTGCTATGTACCCACGTGTGGCCCACCTGCTGTGTGTGCCCGCGTGTGTAGG
GCAGAGCTGCTACATGTACCTAAGCTATCCAGATTATGGGTGCTTTTTTTCCTTTGTAACTGCTGGGCTG
AGTATCCCTTGCTGCTAGGTGCCCAAGGGCAGCTGGCAAGCTGCTCAGAGACAGAACACAACCTGTAATA
GGGGTTTTCTTGGGTGGAATATAGCCGGGTCTGGGACAGCTGCTGTGGTCCCAGTCTTCTGTGTACCCAG
GCCTCACTGCCAGCTTACTACTAGGAGTTGGAAACAGAGGTCCTTGGCTCCATACTTCCCCTCGGGGCAC
TTATGCACCAGGCTGGAAGAGGAGGGCAGCGGAACTACTTTGTTGTGAATGTGGGGAATACAGAGAAGAG
CGAGGTCTTCCCAGAATATATAGGAGCGGCCTTTTACAAGGAAGCCCCTGCCCCCAAGCCTCCTTGATGA
AGAGATGGTTCTTACGTTCAAACTGTTTTAGTTGATGGCGGATGTGCATGCACACACCTTACTCAGGGTG
AATCAAGGAGTAAATACCTCTTGTGGGAAGGACTGCCCAGGAAGGGAAGCTCATTGGCTGAACACTCGGG
GCCCACTTAGATACCACATTACCATGGAGAACTCCAGGTTTTTATGTTACAAGACTGACTGTCACCGTCC
TCTCAGTGGGGTGTCATGTTCCAGATCAGGTAGTTTGGCAGGGAGCTGGCTCTACTCCAGCTGTTCTCAA
TTCTGAGATTTCCCCAGTCTGAGCCTGCTCAACCTTACCAGTTCTTCTGTCTGGTGGCCCGGTCCACTTG
CCCCATATGTAACTTAAATATTTTCAATAACAATAAAATATATTTTATTAATTAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_029842

Insert Size: 1245 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:	BC024807, AAH24807
RefSeq Size:	2378 bp
RefSeq ORF:	1245 bp
Locus ID:	77035
UniProt ID:	Q9CXT6
Cytogenetics:	7 F3
Gene Summary:	Bifunctional enzyme that acts both as an endopeptidase and 2-oxoglutarate-dependent monoxygenase. Endopeptidase that cleaves histones N-terminal tails at the carboxyl side of methylated arginine or lysine residues, to generate 'tailless nucleosomes', which may trigger transcription elongation. Preferentially recognizes and cleaves monomethylated and dimethylated arginine residues of histones H2, H3 and H4. After initial cleavage, continues to digest histones tails via its aminopeptidase activity. Upon DNA damage, cleaves the N-terminal tail of histone H3 at monomethylated lysine residues, preferably at monomethylated 'Lys-9' (H3K9me1). The histone variant H3F3A is the major target for cleavage. Additionnally, acts as Fe(2+) and 2-oxoglutarate-dependent monoxygenase, catalyzing (R)-stereospecific hydroxylation at C-3 of 'Arg-137' of RPS6 and 'Arg-141' of RCCD1, but the biological significance of this activity remains to be established. Regulates mitosis through different mechanisms: Plays a role in transcriptional repression of satellite repeats, possibly by regulating H3K36 methylation levels in centromeric regions together with RCCD1. Possibly together with RCCD1, is involved in proper mitotic spindle organization and chromosome segregation. Negatively regulates cell cycle repressor CDKN1A/p21, which controls G1/S phase transition. Required for G2/M phase cell cycle progression. Regulates expression of CCNA1/cyclin-A1, leading to cancer cell proliferation. Also, plays a role in regulating alpha-tubulin acetylation and cytoskeletal microtubule stability involved in epithelial to mesenchymal transition (By similarity). Regulates the circadian gene expression in the liver (PubMed:30500822). Represses the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer in a catalytically-independent manner (By similarity). Negatively regulates the protein stability and function of CRY1; required for AMPK-FBXL3-induced CRY1 degradation (PubMed:30500822).[UniProtKB/Swiss-Prot Function]