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Product datasheet for MR223212

Kdm5a (NM_145997) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kdm5a (NM_145997) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kdm5a
Synonyms:	AA409370; C76986; Jarid1a; Rbbp2; RBP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-Myc-DDK (PS100007)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MR223212 representing NM_145997.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
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ATGGCGTCCGTGGGCCCGGGGGGCTACGCGGCGGAGTTCGTGCCACCGCCCGAGTGCCCGGTCTTTGAG
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Protein Sequence:

>Peptide sequence encoded by MR223212
Blue=ORF Red=Cloning site Green=Tag(s)

MASVGPGGYAAEFVPPPECPVFEPSWEEFTDPLSFIGRIRPFAEKTGICKIRPPKDWQPPFACEVKTFR
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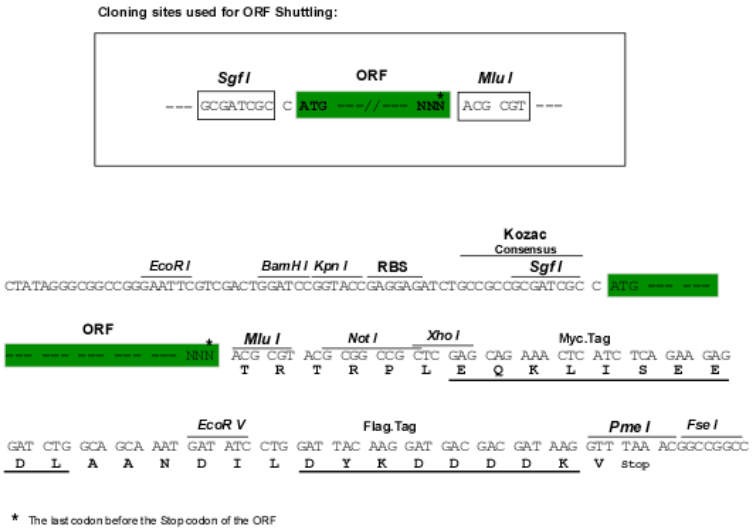
Restriction Sites: SgfI-MluI

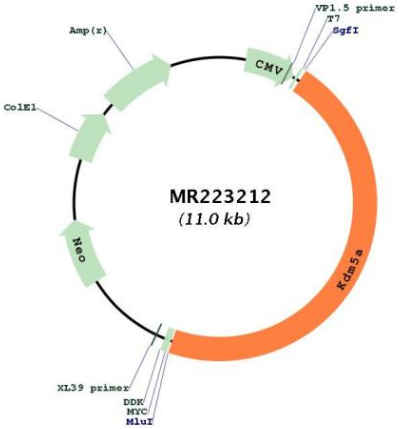
Cloning Scheme:



ACCN:	NM_145997
ORF Size:	5070 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:	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_145997.2, NP_666109.2
RefSeq Size:	10969 bp
RefSeq ORF:	5073 bp
Locus ID:	214899
UniProt ID:	Q3UXZ9
Cytogenetics:	6 56.95 cM
MW:	192.2 kDa

Gene Summary: Histone demethylase that specifically demethylates 'Lys-4' of histone H3, thereby playing a central role in histone code. Does not demethylate histone H3 'Lys-9', H3 'Lys-27', H3 'Lys-36', H3 'Lys-79' or H4 'Lys-20'. Demethylates trimethylated and dimethylated but not monomethylated H3 'Lys-4' (PubMed:17320161, PubMed:17320163). Regulates specific gene transcription through DNA-binding on 5'-CCGCCC-3' motif. May stimulate transcription mediated by nuclear receptors. Involved in transcriptional regulation of Hox proteins during cell differentiation (By similarity). May participate in transcriptional repression of cytokines such as CXCL12. Plays a role in the regulation of the circadian rhythm and in maintaining the normal periodicity of the circadian clock. In a histone demethylase-independent manner, acts as a coactivator of the CLOCK-ARNTL/BMAL1-mediated transcriptional activation of PER1/2 and other clock-controlled genes and increases histone acetylation at PER1/2 promoters by inhibiting the activity of HDAC1 (PubMed:21960634). Seems to act as a transcriptional corepressor for some genes such as MT1F and to favor the proliferation of cancer cells (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR223212