

## Product datasheet for MR211928

### Kdm3a (NM\_001038695) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Kdm3a (NM_001038695) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kdm3a
Synonyms:	1700105C21Rik; C230043E16Rik; JHDM2a; Jmjd1; Jmjd1a; KDM2A; TGSA; Tsga
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211928 representing NM_001038695 Red=Cloning site Blue=ORF Green=Tags(s)

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**Protein Sequence:** >MR211928 representing NM\_001038695  
 Red=Cloning site Green=Tags(s)

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 LHLDVSDAANVMVYVGIKPGQCEQEEVLRITQDGDSELTIKRFIEGKEKPGALWHIYAAKDTEKIREF  
 LKKVSEEQGDNPADHDPIDHQSWYLD RSLRKLRYQEYGVQGWAI VQFLGDVVFIPAGAPHQVHNL YSCI  
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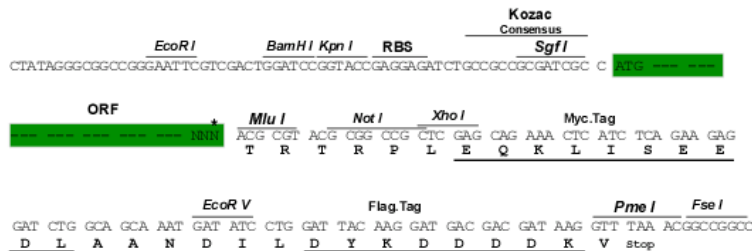
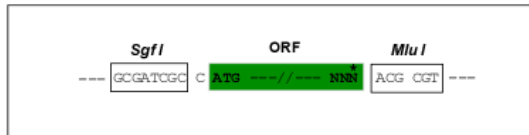
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



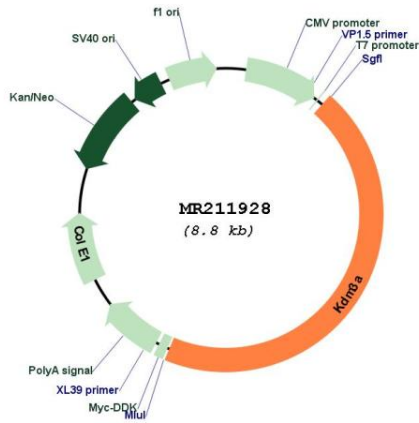
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001038695

**ORF Size:** 3969 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001038695.3</a>, <a href="#">NP_001033784.2</a></u>
<b>RefSeq Size:</b>	4829 bp
<b>RefSeq ORF:</b>	3972 bp
<b>Locus ID:</b>	104263
<b>UniProt ID:</b>	<u><a href="#">Q6PCM1</a></u>
<b>Cytogenetics:</b>	6 C1
<b>MW:</b>	148.3 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for MR211928