

## Product datasheet for **RC218944**

### **JHDM1D (KDM7A) (NM\_030647) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	JHDM1D (KDM7A) (NM_030647) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	JHDM1D
Synonyms:	JHDM1D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC218944 representing NM\_030647  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

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 CGTGAACCGCTTCATGATCGAGTGCATATCTGCAAGGACTGGTCCACGGCAGCTGTGTTGGAGTAGAA  
 GAACATCATGCTGTTGACATTGACCTGTATCACTGTCCCAACTGTGCAGTTTTACATGGTTCCTCCTTGA  
 TGAAAAAAGGAGGAACTGGCACAGACATGACTACACAGAAATTGATGATGGTTCCAAACAGTGAACGC  
 TGGAACTAGAACTTTTATTAAGGAATTACGCTCTCGAGTCTTCCCAAGTCCCGATGAAATAATTATAAAG  
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 ATGGCCATGCACGTTTCTTTGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218944 representing NM\_030647  
 Red=Cloning site Green=Tags(s)

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MAGAAAAVAAGAAAGAAAAVVAAPGRASAPPPPPVYCVCRQPYDVNRFMIECDICKDWFHGSCVGVVE
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MHGSQLTQRYLEKHGFDVPI MVPKLDLGLRLPSPTFSVMDVERYVGGDKVIDVIDVARQADSKMTLHNY
VKYFMNPNRPKVLNVISLEFSDTKMSELVEVPDIAKKLSWVENYWPDDSVFPKPFVQKYCLMGVQDSYTD
FHIDFGGTSVWYHVLWGEKIFYLIKPTDENLARYESWSSSVTQSEVFFGDKVDKCYKCVVKQGHTLFVPT
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SCHGSNHEVRQLYRYDKPVECGYHVKTEDPDLRTSSWIKQFDTSRFHPQDLRSQKQIRKEGSSEISQRV
QSRNYVDSGSSSLQNGKYMQNSNLTSGACQISNGSLSPERPVGTSF SVPLHPTKRPASNPPPI SNQATK
GKRPKKMATAKQRLGKILKLNRRNGHARFFV
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3903\\_d09.zip](https://cdn.origene.com/chromatograms/mg3903_d09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



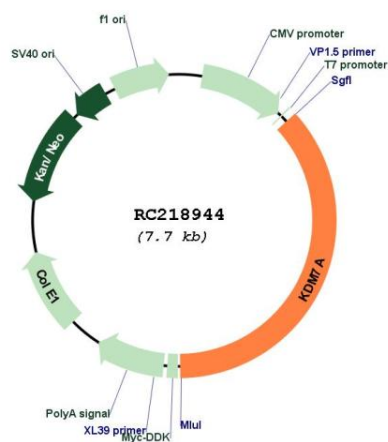
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_030647

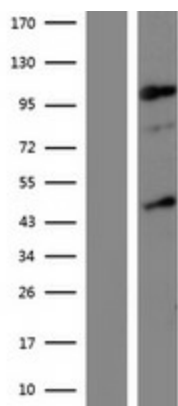
**ORF Size:** 2823 bp

<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>	<a href="#">NM_030647.2</a>
<b>RefSeq Size:</b>	9178 bp
<b>RefSeq ORF:</b>	2826 bp
<b>Locus ID:</b>	80853
<b>UniProt ID:</b>	<a href="#">Q6ZMT4</a>
<b>Cytogenetics:</b>	7q34
<b>MW:</b>	106.4 kDa
<b>Gene Summary:</b>	Histone demethylase required for brain development. Specifically demethylates dimethylated 'Lys-9' and 'Lys-27' (H3K9me2 and H3K27me2, respectively) of histone H3 and monomethylated histone H4 'Lys-20' residue (H4K20Me1), thereby playing a central role in histone code. Specifically binds trimethylated 'Lys-4' of histone H3 (H3K4me3), affecting histone demethylase specificity: in presence of H3K4me3, it has no demethylase activity toward H3K9me2, while it has high activity toward H3K27me2. Demethylates H3K9me2 in absence of H3K4me3. Has activity toward H4K20Me1 only when nucleosome is used as a substrate and when not histone octamer is used as substrate.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC218944



Western blot validation of overexpression lysate (Cat# [LY410768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218944 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).