OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG218944

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:	TurboGFP
Symbol:	KDM7A
Synonyms:	JHDM1D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG218944 representing NM_030647
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGGAGCGGCGGCGGCGGTGGCCGCGGGAGCAGCAGCTGGAGCCGCCGCGGCAGCCGTGTCGGTGG
CGGCTCCCGGCCGGGCCTCGGCGCCTCCGCCGCCCCCGCCCGTGTACTGTGTGTGCCGGCAGCCGTACGA
CGTGAACCGCTTCATGATCGAGTGCGATATCTGCAAGGACTGGTTCCACGGCAGCTGTGTTGGAGTAGAA
GAACATCATGCTGTTGACATTGACCTGTATCACTGTCCCAACTGTGCAGTTTTACATGGTTCCTCCTTGA
TGAAAAAAAGGAGGAACTGGCACAGACATGACTACACAGAAATTGATGATGGTTCCAAACCAGTGCAAGC
TGGAACTAGAACTTTCATTAAGGAATTACGCTCTCGAGTCTTCCCAAGTGCCGATGAAATAATTATAAAG
ATGCATGGCAGCCAGCTGACACAAAGATATCTGGAGAAACATGGATTTGATGTCCCTATTATGGTCCCAA
AATTAGATGATCTAGGACTCAGGCTCCCTTCACCTACATTTTCTGTGATGGATGTGGAACGTTATGTAGG
TGGTGACAAAGTGATAGATGTCATTGATGTGGCGAGGCAGGCAGACAGCAAAATGACACTTCACAATTAT
GTTAAATACTTCATGAATCCTAACAGACCAAAAGTGTTAAATGTGATCAGCCTTGAATTTTCAGATACAA
AGATGTCTGAATTGGTGGAGGTCCCTGATATAGCCAAAAAACTTTCCTGGGTGGAAAATTATTGGCCAGA
TGATTCAGTCTTTCCCAAGCCATTTGTTCAGAAATATTGCTTAATGGGAGTTCAAGACAGCTATACAGAT
TTCCACATTGACTTCGGTGGAACTTCAGTCTGGTACCATGTCCTCTGGGGTGAGAAGATTTTTTATTTAA
TAAAGCCAACAGATGAAAATTTGGCACGTTATGAATCTTGGAGTTCATCTGTGACCCAGAGTGAGGTGTT
CTTTGGAGATAAGGTGGATAAATGCTACAAATGTGTGGTAAAGCAGGGACATACCTTATTTGTTCCTACA
GGGTGGATCCATGCTGTGCTCACTTCTCAGGACTGTATGGCTTTTGGGGGGAACTTCCTGCACAACCTTA
ACATTGGCATGCAGCTCAGGTGTTATGAGATGGAGAAAAGGCTAAAAACACCAGATCTTTTCAAATTCCC
TTTCTTTGAAGCCATATGTTGGTTTGTAGCCAAAAACTTGCTGGAAACCCTGAAAGAACTGAGAGAAGAT
GGTTTCCAGCCTCAAACTTACCTAGTACAGGGAGTGAAAGCACTGCATACTGCTTTAAAATTATGGATGA
AAAAAGAACTTGTATCTGAACATGCCTTTGAAATTCCAGACAATGTTAGACCTGGACACCTTATTAAAGA
ACTTTCTAAAGTAATTCGAGCAATAGAGGAGGAAAACGGCAAACCAGTTAAATCTCAGGGAATTCCTATT
GTGTGTCCAGTTTCACGATCCTCAAATGAAGCAACTTCCCCATACCATTCCCGAAGAAAGATGAGGAAAC
TTCGAGATCATAATGTCCGAACTCCTTCTAACCTAGACATCCTAGAGCTCCACACAAGGGAGGTCCTCAA
AAGATTAGAGATGTGTCCATGGGAAGAGGACATCTTGAGCTCTAAACTGAATGGAAAATTCAACAAACAT
CTCCAACCATCCTCCACAGTACCTGAATGGAGAGCGAAAGATAATGATCTACGATTACTGCTGACAAATG
GAAGAATAATTAAAGATGAAAGGCAGCCCTTTGCAGATCAAAGTCTTTATACAGCAGATAGTGAAAATGA
AGAGGATAAAAGAAGGACAAAAAAGGCAAAAATGAAGATAGAAGAGAGTTCAGGAGTAGAGGGAGTGGAA
CATGAAGAATCTCAAAAACCACTGAATGGGTTTTTTACACGTGTGAAATCAGAACTCAGGAGTAGATCAT
CAGGATATTCTGATATTTCTGAGTCAGAAGACTCCGGACCCGAGTGCACTGCACTGAAAAGTATCTTTAC
CACTGAAGAGTCTGAAAGTTCAGGTGATGAAAAGAAACAAGAAATAACATCCAACTTTAAGGAGGAATCT
AATGTGATGAGGAACTTCCTTCAAAAGAGCCAGAAGCCATCTAGAAGTGAAATTCCAATTAAAAGGGAAT
GTCCTACCTCGACGAGCACAGAGGAAGAAGCTATTCAGGGCATGCTGTCTATGGCAGGGTTGCACTATTC
CACGTGTTTACAAAGGCAAATACAAAGCACAGACTGCAGTGGTGAAAGAAACTCTCTCCAGGATCCCAGC
AGCTGCCATGGCAGTAACCATGAGGTTAGGCAGTTGTATCGCTATGATAAACCAGTGGAATGTGGATACC
ATGTCAAGACTGAAGATCCAGACTTGAGGACTTCCTCCTGGATTAAACAGTTTGATACTTCCAGATTTCA
TCCTCAGGATCTAAGTAGAAGCCAGAAATGCATCAGAAAGGAAGGTTCATCAGAAATTAGTCAGAGGGTA
CAAAGTAGGAATTATGTGGACAGCAGCGGCTCAAGCCTTCAGAATGGAAAGTATATGCAGAATTCAAACC
TGACTTCGGGGGCGTGCCAGATAAGTAATGGCAGTCTAAGCCCAGAAAGGCCAGTTGGTGAAACTTCCTT
CTCGGTGCCCCTTCACCCCACCAAGAGACCGGCATCAAATCCACCACCTATCAGCAACCAGGCAACAAAA
GGTAAACGTCCAAAAAAAGGAATGGCAACAGCCAAACAACGTCTTGGGAAGATCCTTAAGTTGAACAGAA
ATGGCCATGCACGTTTCTTTGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

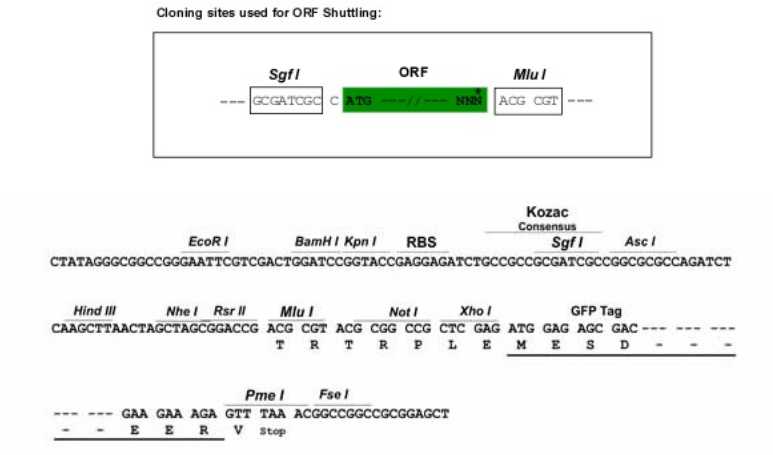
>RG218944 representing NM_030647
Red=Cloning site Green=Tags(s)

MAGAAAAVAAGAAAGAAAAAVSVAAPGRASAPPPPPPVYCVCRQPYDVNRFMIECDICKDWFHGSCVGVE
EHHAVDIDLYHCPNCAVLHGSSLMKKRRNWHRHDYTEIDDGSKPVQAGTRTFIKELRSRVFPSADEIIIK
MHGSQLTQRYLEKHGFDVPIMVPKLDDLGLRLPSPTFSVMDVERYVGGDKVIDVIDVARQADSKMTLHNY
VKYFMNPNRPKVLNVISLEFSDTKMSELVEVPDIAKKLSWVENYWPDDSVFPKPFVQKYCLMGVQDSYTD
FHIDFGGTSVWYHVLWGEKIFYLIKPTDENLARYESWSSSVTQSEVFFGDKVDKCYKCVVKQGHTLFVPT
GWIHAVLTSQDCMAFGGNFLHNLNIGMQLRCYEMEKRLKTPDLFKFPFFEAICWFVAKNLLETLKELRED
GFQPQTYLVQGVKALHTALKLWMKKELVSEHAFEIPDNVRPGHLIKELSKVIRAIEEENGKPVKSQGIPI
VCPVSRSSNEATSPYHSRRKMRKLRDHNVRTPSNLDILELHTREVLKRLEMCPWEEDILSSKLNGKFNKH
LQPSSTVPEWRAKDNDLRLLLTNGRIIKDERQPFADQSLYTADSENEEDKRRTKKAKMKIEESSGVEGVE
HEESQKPLNGFFTRVKSELRSRSSGYSDISESEDSGPECTALKSIFTTEESESSGDEKKQEITSNFKEES
NVMRNFLQKSQKPSRSEIPIKRECPTSTSTEEEAIQGMLSMAGLHYSTCLQRQIQSTDCSGERNSLQDPS
SCHGSNHEVRQLYRYDKPVECGYHVKTEDPDLRTSSWIKQFDTSRFHPQDLSRSQKCIRKEGSSEISQRV
QSRNYVDSSGSSLQNGKYMQNSNLTSGACQISNGSLSPERPVGETSFSVPLHPTKRPASNPPPISNQATK
GKRPKKGMATAKQRLGKILKLNRNGHARFFV

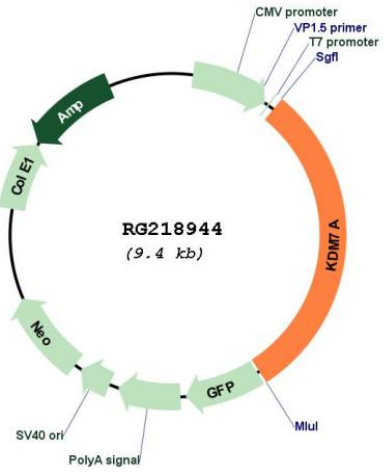
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_030647
ORF Size:	2823 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_030647.2
RefSeq Size:	9178 bp
RefSeq ORF:	2826 bp
Locus ID:	80853
UniProt ID:	Q6ZMT4
Cytogenetics:	7q34

Gene Summary: 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]