

Product datasheet for **MG205297**

Kmt5a (NM_030241) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kmt5a (NM_030241) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kmt5a
Synonyms:	2410195B05Rik; AA617402; AW536475; PR-SET7; PR/SET07; Setd8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205297 representing NM_030241 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTAGAGGCAGGAAGATGTGCAAGCCCCGCGCGGTGGAGGCGGCGGGCGGGCGGTGGCGGCGACGG
CCCCGGGCCCGGAGATGGTGGAGCAGAGGGGCCCGGGAGGCCCGCAGCGACGGGGAGAACGTGTTTGC
TGGGCAGTCAAAGATCTATGCCTACATGAGTCCGAACAAGTGCTCTGCAATGCGCTCTCCACTTCAGGAA
GAGAACTCGTTGCCATCATGAGGTCAAATGCCCGGGAAACCATTAGCTGGAATCTACAGGAAGCGAG
AAGAGAAAAGGAACACCGGGAACGTTATACGAAGCGCTGTGAAGTCAGATGAACAGAAGAGCAAAGACAC
CAGGAGAGGTCCCCTGGCGCCTTTTCAAACCAAAAATCCGAAGCAGCAGAACCTCCAAAACTCCACCC
CCATCATGTGATTCTACCAATGTAGCAGTCGCTAAGCAAGCCCTGAAAAAGTCCCTCAAGGGCAAACAGG
CCCCTCGAAAAAGTCTCAAGGGAAAACCCAGCAGAATAGAAAATCACAGATTTCTACCCTGTGCGGAG
GAGTTCGGGAAGAGCAAAGCTGAGCTGCAGTCTGAAGAAAGGAAGAAAATGAGCTGATTGAGAGCGGG
AAGGAAGAAGGCATGAAGATTGATCTAATTGATGGCAAAGGCAGGGGTGTGATCGCTACCAAGCAGTTCT
CCAGGGGAGACTTTGTGGTAGAATACCATGGGGACCTCATTGAAATCACTGATGCCAAGAAGCGGGAGGC
TCTGTACGTACAGGACCCCTCCACTGGCTGCTACATGTACTATTTTCAGTATCTGAGCAAAACCTACTGC
GTGGATGCCACTCAAGAAACGAACCGCCTAGGGAGACTCATCAATCACAGTAAGTGTGGAACTGCCAGA
CCAAACTGCACGACATCGACGGCGTGCCTCACCTCATCCTCATCGCCTCCGAGACATCGCAGTGGGGA
GGAGCTCCTGTACGACTATGGGACCGAAGCAAGGCCTCCATCGAAGCCTACCCCTGGCTGAAGCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG205297 representing NM_030241
 Red=Cloning site Green=Tags(s)

MARGRKMCKPRAVEAAAAVAATAPGPEMVEQRGPGRPRSDGENVFAQQSKIYAYMSPNKCSAMRSPLQE
 ENSVAHHEVKCPGKPLAGIYRKREEKRNTGNVIRSAVKSDQSKDTRRGLAPFPNQKSEAAEPPKTPP
 PSCDSTNVAVAKQALKSLKKGQAPRKKSQGKTQQNRKLTDFYPVRRSSRKSKAELQSEERKKNELIESG
 KEEGMKIDLIDGKGRGVIATKQFSRGDFVVEYHGDLEITDAKKREALYVQDPSTGCYMYFQYLSKTYC
 VDATQETNRLGRLINHSKCGNCQTKLHDIDGVPHLILIASRDIAAGEELLYDYGDRSKASIEAYPWLKH

TRTRPLE - GFP Tag - V

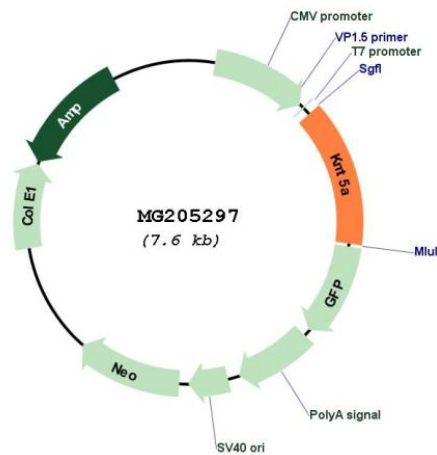
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_030241

ORF Size: 1050 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:	<ol style="list-style-type: none">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_030241.2
RefSeq Size:	2738 bp
RefSeq ORF:	1053 bp
Locus ID:	67956
UniProt ID:	Q2YDW7
Cytogenetics:	5 F
Gene Summary:	Protein-lysine N-methyltransferase that monomethylates both histones and non-histone proteins. Specifically monomethylates 'Lys-20' of histone H4 (H4K20me1). H4K20me1 is enriched during mitosis and represents a specific tag for epigenetic transcriptional repression. Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. Required for cell proliferation, probably by contributing to the maintenance of proper higher-order structure of DNA during mitosis. Involved in chromosome condensation and proper cytokinesis. Nucleosomes are preferred as substrate compared to free histones. Mediates monomethylation of p53/TP53 at 'Lys-382', leading to repress p53/TP53-target genes. Plays a negative role in TGF-beta response regulation and a positive role in cell migration (By similarity).[UniProtKB/Swiss-Prot Function]