

## Product datasheet for **MG205897**

### Prmt6 (NM\_178891) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prmt6 (NM_178891) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prmt6
Synonyms:	AW124876; BB233495; Hrmt116
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG205897 representing NM_178891 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGCTGAGCAAGAAAAGAAAGCTTGAGTCGGGGACAGCGGAGGCGCCGGCGCCGGAGGGGAGGGAG  
CCGAAGAGGAAAATGGCGGGGAGCAGGAGGCGGCCCGCCACGACCCGGAGGACCAAGAGCGAGCGGGA  
CCAGCTGTACTACGAGTGTACTCCGACGTCTCGGTCCACGAGGAGATGATCGCCGACCAGGTCCGCACC  
GAAGCCTACCGCTTAGGCATCCTGAAGAACTGGCCCGCGCTGCGAGGCAAGACGGTCTGGACGTGGGCG  
CGGGCACCGGCATTCTCAGCATTTCTGTGCCAGGCCGGGGCCCGCGCGTGTACGCGGTGGAGGCCAG  
CGCCATCTGGCAACAGGCCCGGGAGGTGGTGCAGCTCAACGGGTTGGAGGACCGCGTGCACGTCTGCCG  
GGCCCGGTGGAGACCGTGGAGCTGCCGGAGCGAGTGGACGCCATCGTCAGCGAGTGGATGGGCTACGGAC  
TTCTGCACGAGTCCATGCTGAGCTCCGTGCTCCACGCGCGGACCAATGGCTGAAGGAGGGCGGTCTCCT  
CCTGCCAGCTTCCGCGGAGCTTCTCGTGGCCCCGATTAGCGACCAGATGCTCGAGTGGCGTCTGGGTTTC  
TGGAGCCAGGTGAAGCAGCACTATGGCGTGGATATGAGCTGCATGGAGAGCTTCGCCACGCGCTGCCTCA  
TGGGCCATTCCGAGATCGTGGTGCAGGATCTGTGGGAGAGGACGTGCTGGCCCGGCCGACGCGCTTTGC  
CCAGCTCGAGCTGGCCCGAGCCGGCCTGGAGCAGGAGCTGGAGGCTGGTGTGGCCGGGCGCTTCCGCTGC  
AGCTGCTATGGTCCGCGCCTCTACATGGTTTCGCGCTGTTTCAAGTGACCTTCCCGAGGGGACT  
CGGAGAAACCTCTGGTGTGTCCACCTCGCCTTTTACCCGGCCACCCACTGGAAGCAGGCGCTCCTCTA  
CTTGAACGAGCCGGTGCAGGTTGGAACAAGATACGGACATTTCCGAGAGATCACCCCTGCTGCCCTCCCCG  
GACAACCCCGCGCTCTGCGCATACTTCTGCGCTACAAAGTGGGAGACCATGAGGAAAAGACCAAAGACT  
TTGCCATGGAGGAC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG205897 representing NM\_178891  
Red=Cloning site Green=Tags(s)

MSLSKKRRLKESGDSGGAGAGGEGAEENGGEQEAPPRPRRTKSERDQLYYECYSDVSVHEEMIADQVRT  
 EAYRLGILKNWAALRGKTVLDVGAGTGILSIFCAQAGARRVYAVEASAIWQQAQREVVRLNGLEDVRVHLP  
 GPVETVELPERVDAIVSEWMGYLLHESMLSSVLHARTKWLKEGGLLLPASAELFVAPISDQMLEWRLGF  
 WSQVQKQHYGVDMSCMESFATRCLMGHSEIVVQDLSGEDVLRPQRFQAQLELARAGLEQELEAGVGGFRFC  
 SCYGSAPLHGFAVWFQVTFPGDSEKPLVLSTSPFHPATHWKQALLYLNEPVPVEQDQTDISGEITLLPSP  
 DNPRLRILLRYKVGDEEKTDFAMED

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_178891

**ORF Size:** 2472 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\\_178891.4](#)

**RefSeq Size:** 2453 bp

**RefSeq ORF:** 1137 bp

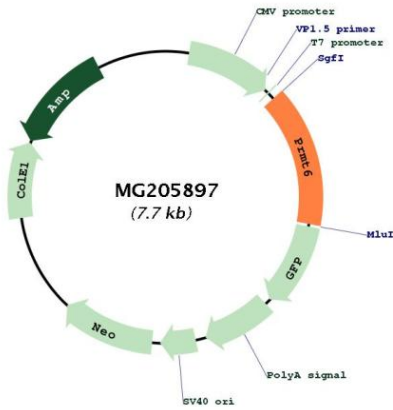
**Locus ID:** 99890

**UniProt ID:** [Q6NZB1](#)

**Cytogenetics:** 3 F3

**Gene Summary:** Arginine methyltransferase that can catalyze the formation of both omega-N monomethylarginine (MMA) and asymmetrical dimethylarginine (aDMA), with a strong preference for the formation of aDMA (PubMed:22904064, PubMed:26070566). Preferentially methylates arginyl residues present in a glycine and arginine-rich domain and displays preference for monomethylated substrates (By similarity). Specifically mediates the asymmetric dimethylation of histone H3 'Arg-2' to form H3R2me2a (By similarity). H3R2me2a represents a specific tag for epigenetic transcriptional repression and is mutually exclusive with methylation on histone H3 'Lys-4' (H3K4me2 and H3K4me3) (By similarity). Acts as a transcriptional repressor of various genes such as HOXA2, THBS1 and TP53 (PubMed:22904064). Repression of TP53 blocks cellular senescence (PubMed:22904064). Also methylates histone H2A and H4 'Arg-3' (H2AR3me and H4R3me, respectively). Acts as a regulator of DNA base excision during DNA repair by mediating the methylation of DNA polymerase beta (POLB), leading to the stimulation of its polymerase activity by enhancing DNA binding and processivity. Methylates HMGA1. Regulates alternative splicing events. Acts as a transcriptional coactivator of a number of steroid hormone receptors including ESR1, ESR2, PGR and NR3C1. Promotes fasting-induced transcriptional activation of the gluconeogenic program through methylation of the CRT2 transcription coactivator (PubMed:24570487). Methylates GPS2, protecting GPS2 from ubiquitination and degradation (PubMed:26070566).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG205897