

## Product datasheet for **RN200050**

### **Carm1 (NM\_001030041) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Carm1 (NM_001030041) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Carm1
Synonyms:	Prmt4
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >RN200050 representing NM\_001030041  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAGCGGCGGCAGCGACGGCGGTGGGGCCGGGTGCGGGGAGCGCTGGGGTGGCGGGCCCGGGCGGCG  
 CGGGGCCCTGCGCGACAGTGTGGTGTCCCGCGCGCCGCCCTCCTCACTATCGGCGACGCGAACGGCGA  
 GATCCAGCGGCACGCGGAGCAGCAGGCGCTGCGCCTCGAGGTGCGCGCCGACCAGACGCGGCGGGCATC  
 GCCCTCTACAGCCATGAAGATGTGTGTGTCAAGTGCTCAGTGTCCGAGAGACAGAGTGCAGCCGTG  
 TGGGCAGGAGTCTTCATCATCACTGGGCTGCAACAGCGTCTCATCCAGTTCGCCACACCCACGA  
 TTTCTGTTCTTTACAACATCTGAAACCTGCCGGGGCCACACTGGAGCGCTCTGTGTTCAGTGAG  
 CGAACAGAGGAGTCTCAGTGTGCAGTACTTCCAGTTTTATGGTACCTGTCCAGCAGCAGAATGA  
 TGCAGGACTATGTGCGAACAGGCACCTACCAGCGTGAATCCTGCAGAACCACACCGACTCAAGGACAA  
 GATCGTTCTAGATGTGGGCTGTGGCTCTGGGATCCTGTCACTTTGCTGCTCAAGCAGGAGCCAGGAAA  
 ATTTACGCAGTGAAGCCAGCACCATGGCTCAGCATGCCGAGGTCTGGTGAAGAGTAACAATCTGACAG  
 ACCGCATCGTGGTCATCCCTGGCAAAGTAGAGGAGGTCTCATTGCCTGAGCAAGTGGACATTATCATCTC  
 AGAGCCCATGGGCTACATGCTCTTCAACGAACGTATGCTTGAGAGCTACCTCCATGCCAAAAAGTACCTG  
 AAGCCCAGCGCAACATGTTCCCAACATTGGTGATGTTACCTTGACCCCTTCACTGATGAACAGCTCT  
 ACATGGAACAGTTCACCAAAGCCAATTCTGGTACCAGCCATCCTCCATGGAGTGGACCTGTGAGCCCT  
 CCGAGGTGCCGCTGTGGATGAGTACTCCGGCAACCTGTGGTGGACACATTTGACATCCGGATCCTGATG  
 GCCAAATCTGCAAGTACACAGTGAACCTCCTAGAAGCCAAAGAAGGCGATTTGCACAGGATAGAAATCC  
 CATTCAAATCCACATGCTGCATTCAGGGCTGGTCCACGGCTTGGCTTCTGGTTCGATGTTGCTTTCAT  
 TGGCTCCATAATGACCGTGTGGCTCTCCACAGCCCAACAGAGCCCTGACCCACTGGTACCAGGTCCGG  
 TGCTCTTCCAGTCACCGTTGTTTGCCAAGGCCGGGACACGCTCTCAGGGACATGTCTGCTTATTGCCA  
 ACAAAGACAGAGCTATGACATCAGTATTGTGGCACAGGTGGACCAGACAGGCTCCAAATCCAGTAACT  
 GCTGGATCTAAAGAACCCTTCTCAGGTACACAGGTACAACCCCATCACCCCGCCTGGCTCACACTAC  
 ACGTCTCCCTCGGAGAATATGTGGAATACGGGAAGCACCTACAATCTCAGCAGCGGGGTGGCTGTGGCTG  
 GAATGCCTACTGCCTACGACCTGAGCAGTGTATTGCTGGCGGCTCCAGCGTGGTCCACAACACCTGAT  
 TCCCTTAGCCAACACAGGATTGTAATCACACCCACTCCCGGATGGGCTCCATAATGAGCACGGGCATT  
 GTCGAAGGCTCCTCAGGTGCCAGGAGGCGGGGTAGTCCAGTCCCCTATGCAGTCAACAACCACT  
 TCACCATGGGTGGCCCTGCCATCTATGGCCTCGCCCATGTCCATCCGACCAACACCATGCATATGG  
 GAGTTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001030041

**Insert Size:** 1827 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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).

<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_001030041.3</a> , <a href="#">NP_001025212.1</a>
<b>RefSeq Size:</b>	3225 bp
<b>RefSeq ORF:</b>	1827 bp
<b>Locus ID:</b>	363026
<b>UniProt ID:</b>	<a href="#">Q4AE70</a>
<b>Cytogenetics:</b>	8q13
<b>Gene Summary:</b>	<p>Methylates (mono- and asymmetric dimethylation) the guanidino nitrogens of arginyl residues in several proteins involved in DNA packaging, transcription regulation, pre-mRNA splicing, and mRNA stability. Recruited to promoters upon gene activation together with histone acetyltransferases from EP300/P300 and p160 families, methylates histone H3 at 'Arg-17' (H3R17me), forming mainly asymmetric dimethylarginine (H3R17me2a), leading to activates transcription via chromatin remodeling. During nuclear hormone receptor activation and TCF7L2/TCF4 activation, acts synergically with EP300/P300 and either one of the p160 histone acetyltransferases NCOA1/SRC1, NCOA2/GRIP1 and NCOA3/ACTR or CTNNB1/beta-catenin to activate transcription. During myogenic transcriptional activation, acts together with NCOA3/ACTR as a coactivator for MEF2C. During monocyte inflammatory stimulation, acts together with EP300/P300 as a coactivator for NF-kappa-B. Acts as coactivator for PPARG, promotes adipocyte differentiation and the accumulation of brown fat tissue. Plays a role in the regulation of pre-mRNA alternative splicing by methylation of splicing factors. Also seems to be involved in p53/TP53 transcriptional activation. Methylates EP300/P300, both at 'Arg-2142', which may loosen its interaction with NCOA2/GRIP1, and at 'Arg-580' and 'Arg-604' in the KIX domain, which impairs its interaction with CREB and inhibits CREB-dependent transcriptional activation. Also methylates arginine residues in RNA-binding proteins PABPC1, ELAVL1 and ELAV4, which may affect their mRNA-stabilizing properties and the half-life of their target mRNAs.[UniProtKB/Swiss-Prot Function]</p>