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 RC206586

PNMT (NM_002686) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PNMT (NM_002686) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PNMT
Synonyms:	PENT; PNMTase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC206586 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAGCGGCGCAGACCGTAGCCCCAATGCGGGCGCAGCCCCTGACTCGGCCCCGGGCCAGGCGGCGGTGG
CTTCGGCCTACCAGCGCTTCGAGCCGCGCGCCTACCTCCGCAACAACTACGCGCCCCCTCGCGGGGACCT
GTGCAACCCGAACGGCGTCGGGCCGTGGAAGCTGCGCTGCTTGGCGCAGACCTTCGCCACCGGTGAAGTG
TCCGGACGCACCCTCATCGACATTGGTTCAGGCCCCACCGTGTACCAGCTGCTCAGTGCCTGCAGCCACT
TTGAGGACATCACCATGACAGATTTCCTGGAGGTCAACCGCCAGGAGCTGGGGCGCTGGCTGCAGGAGGA
GCCGGGGGGCCTTCAACTGGAGCATGTACAGCCAACATGCCTGCCTCATTGAGGGCAAGGGGGAATGCTGG
CAGGATAAGGAGCGCCAGCTGCGAGCCAGGGTGAAACGGGTCCTGCCCATCGACGTGCACCAGCCCCAGC
CCCTGGGTGCTGGGAGCCCAGCTCCCCTGCCTGCTGACGCCCTGGTCTCTGCCTTCTGCTTGGAGGCTGT
GAGCCCAGATCTTGCCAGCTTTCAGCGGGCCCTGGACCACATCACCACGCTGCTGAGGCCTGGGGGGCAC
CTCCTCCTCATCGGGGCCCTGGAGGAGTCGTGGTACCTGGCTGGGGAGGCCAGGCTGACGGTGGTGCCAG
TGTCTGAGGAGGAGGTGAGGGAGGCCCTGGTGCGTAGTGGCTACAAGGTCCGGGACCTCCGCACCTATAT
CATGCCTGCCCACCTTCAGACAGGCGTAGATGATGTCAAGGGCGTCTTCTTCGCCTGGGCTCAGAAGGTT
GGGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC206586 protein sequence
Red=Cloning site Green=Tags(s)

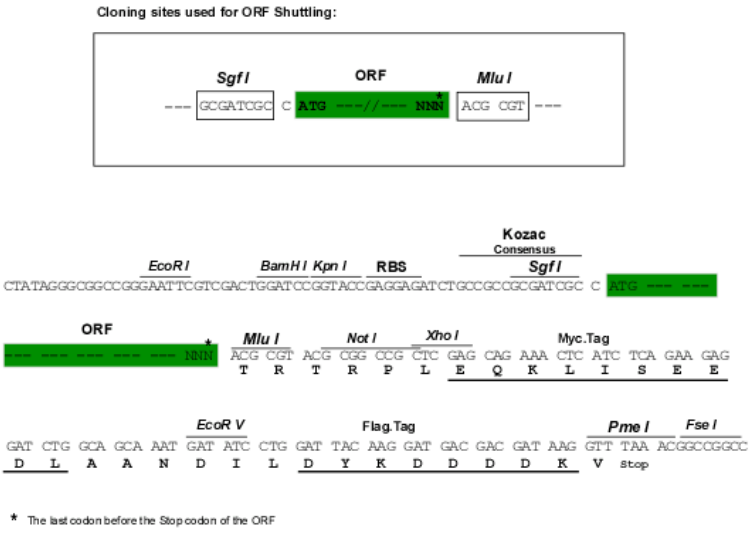
MSGADRSPNAGAAPDSAPGQAAVASAYQRFEPRAYLRNNYAPPRGDLCNPNGVGPWKLRCLAQTFATGEV
SGRTLIDIGSGPTVYQLLSACSHFEDITMTDFLEVNRQELGRWLQEEPGAFNWSMYSQHACLIEGKGECW
QDKERQLRARVKRVLPIDVHQPQPLGAGSPAPLPADALVSAFCLEAVSPDLASFQRALDHITTLLRPGGH
LLLIGALEESWYLAGEARLTVVPVSEEEVREALVRSGYKVRDLRTYIMPAHLQTGVDDVKGVFFAWAQKV
GL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6018_b11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002686

ORF Size: 846 bp

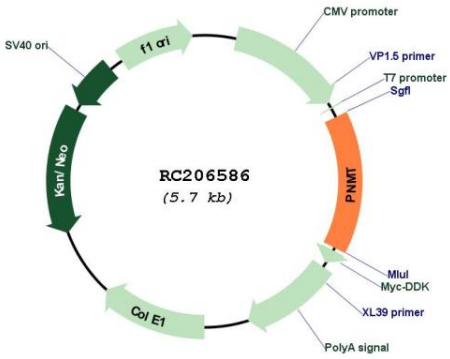
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

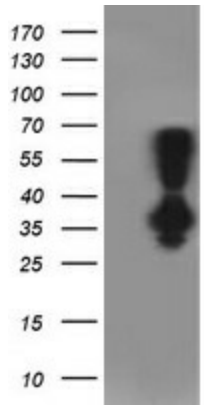
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_002686.4
RefSeq Size:	958 bp
RefSeq ORF:	849 bp
Locus ID:	5409
UniProt ID:	P11086
Cytogenetics:	17q12
Domains:	NNMT_PNMT_TEMT
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Tyrosine metabolism
MW:	30.9 kDa
Gene Summary:	The product of this gene catalyzes the last step of the catecholamine biosynthesis pathway, which methylates norepinephrine to form epinephrine (adrenaline). The enzyme also has beta-carboline 2N-methyltransferase activity. This gene is thought to play a key step in regulating epinephrine production. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2012]

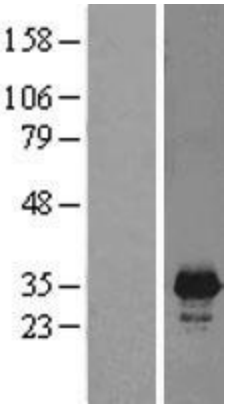
Product images:



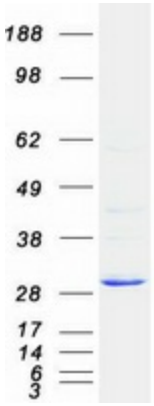
Circular map for RC206586



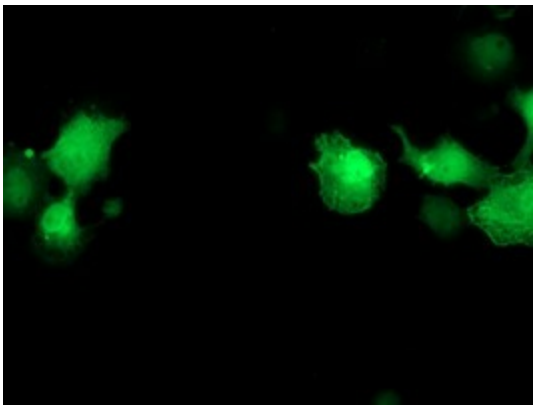
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PNMT (Cat# RC206586, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PNMT (Cat# [TA502822]). Positive lysates [LY400946] (100ug) and [LC400946] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400946]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206586 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PNMT protein (Cat# [TP306586]). The protein was produced from HEK293T cells transfected with PNMT cDNA clone (Cat# RC206586) using MegaTran 2.0 (Cat# [TT210002]).



Anti-PNMT mouse monoclonal antibody ([TA502822]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PNMT (RC206586).