

Product datasheet for **MC208096**

Aanat (NM_009591) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Aanat (NM_009591) Mouse Untagged Clone
Tag: Tag Free
Symbol: Aanat
Synonyms: AA-NAT; Na; Nat; Nat-2; Nat4; S; Snat
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC208096 representing NM_009591
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTTGAACATCAACTCCCTGAAACCTGAGGCCCTGCACCTGCCACTTGGGACCTCAGAGTTCCTAGGCT
GCCAGCGGCCACACACTCCCTGCCAGTGAGTCCGCTGCCTCACACCTGAGGATGCCACCAAGTGCCTT
TGAGATTGAGCGGAAGCCTTTATCTCTGTCTCCGGTACCTGTCCCTCTACTTGGATGAGATCCGGCAC
TTCTTAACCCTGTGTCCAGAGCTGTCACTGGGCTGGTTTGAGGAAGGCTGCCTTGTGGCCTTCATATTG
GCTCGCTGTGGACAAGGAGAGACTTACTCAGGAGTCGCTGACACTACACAGGCCCGGAGGCCGCACAGC
CCACCTGCACGTACTGGCGGTGCACAGAACCTCCGGCAGCAGGGCAAGGGCTCTGTCTCTGTGGAGA
TACCTTACCACCTGGGCAGTCAGCCGGCCGTGCGCCGGGCTGTGCTCATGTGTGAGGATGCCCTGGTAC
CCTTCTATGAGAAATTTGGCTTCCAGGCTGTGGGCCCATGTGCCATCACCGTGGGCTCTCACCTTAC
GGAGCTACAGTGTTCCTTACGATGCCACGCCTTCTGCGCAGGAACAGCGGCTGC**TGA**

ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_009591
Insert Size: 618 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).



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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:	<u>NM_009591.3, NP_033721.1</u>
RefSeq Size:	1370 bp
RefSeq ORF:	618 bp
Locus ID:	11298
UniProt ID:	<u>O88816</u>
Cytogenetics:	11 E2
Gene Summary:	<p>The protein encoded by this gene belongs to the acetyltransferase superfamily. It is the penultimate enzyme in melatonin synthesis and controls the night/day rhythm in melatonin production in the vertebrate pineal gland. Melatonin is essential for the function of the circadian clock that influences activity and sleep. This enzyme is regulated by cAMP-dependent phosphorylation that promotes its interaction with 14-3-3 proteins and thus protects the enzyme against proteasomal degradation. This gene may contribute to numerous genetic diseases such as delayed sleep phase syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2010]</p> <p>Transcript Variant: This variant (1) represents the shorter and protein-coding transcript.</p> <p>Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>