

## Product datasheet for **MR218438L3V**

### Aanat (NM\_009591) Mouse Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Aanat (NM_009591) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Aanat
Synonyms:	AA-NAT; Na; Nat; Nat-2; Nat4; S; Snat
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_009591
ORF Size:	618 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR218438).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_009591.3</a> , <a href="#">NP_033721.1</a>
RefSeq Size:	1370 bp
RefSeq ORF:	618 bp
Locus ID:	11298
UniProt ID:	<a href="#">O88816</a>
Cytogenetics:	11 E2



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**Gene Summary:**

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]