

### Product datasheet for RC210142L3

#### OriGene Technologies, Inc.

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#### Serotonin N acetyltransferase (AANAT) (NM 001088) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Serotonin N acetyltransferase (AANAT) (NM\_001088) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

**Symbol:** Serotonin N acetyltransferase

Synonyms: DSPS; SNAT

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC210142).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





st The last codon before the Stop codon of the ORF.

**ACCN:** NM\_001088

ORF Size: 621 bp



# Serotonin N acetyltransferase (AANAT) (NM\_001088) Human Tagged Lenti ORF Clone – RC210142L3

**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:** <u>NM 001088.1</u>

RefSeq Size: 1014 bp
RefSeq ORF: 624 bp
Locus ID: 15

 UniProt ID:
 Q16613

 Cytogenetics:
 17q25.1

**Protein Pathways:** Metabolic pathways, Tryptophan metabolism

MW: 23.2 kDa

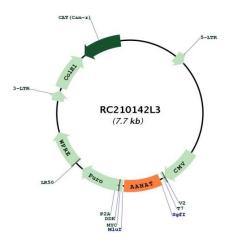
**Gene Summary:** The protein encoded by this gene belongs to the acetyltransferase superfamily. It is the

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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by

RefSeq, Oct 2009]



## **Product images:**



Circular map for RC210142L3