

Recombinant Rat Aanat protein, His & T7-tagged

Cat. No. Aanat-1991R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Aanat aa. (Glu22~Gln235) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Rat
Source	E.coli
ProteinLength	Glu22~Gln235
Description	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.
Form	Freeze-dried powder
Molecular Mass	37kDa as determined by SDS-PAGE reducing conditions.
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	> 90%

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Characteristic	The isoelectric point is 5.5.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage Buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH ₂ O.

GENE INFORMATION

Gene Name	Aanat aralkylamine N-acetyltransferase [Rattus norvegicus (Norway rat)]
Official Symbol	Aanat
Synonyms	Ptpn3; protein tyrosine phosphatase, non-receptor type 3; PTPCL; PTP-H1; 9530011I20Rik; tyrosine-protein phosphatase non-receptor type 3; protein-tyrosine phosphatase H1
Gene ID	25120

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mRNA Refseq	NM_012818.2
Protein Refseq	NP_036950.1
UniProt ID	Q64666

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