# 芳香胺 N-乙酰化转移酶抗体

**产品货号：** mlR3914

**英文名称：** AANAT

**中文名称：** 芳香胺 N-乙酰化转移酶抗体

**别　　名：** SNAT_HUMAN; AANAT; Arylalkylamine N acetyltransferase; Serotonin N-acetyltransferase; SNAT.

**研究领域：** 肿瘤　细胞生物　免疫学　神经生物学　信号转导　新陈代谢

**抗体来源：** Rabbit

**克隆类型：** Polyclonal

**交叉反应：** Human, Mouse, Rat, Dog,

**产品应用：** WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 （石蜡切片需做抗原修复）

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

**分 子 量：** 23kDa

**细胞定位：** 细胞浆

**性　　状：** Lyophilized or Liquid

**浓　　度：** 1mg/ml

**免 疫 原：** KLH conjugated synthetic peptide derived from human AANAT:141-207/207

**亚　　型：** IgG

**纯化方法：** affinity purified by Protein A

**储 存 液：** 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

**保存条件：** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**PubMed：** **PubMed**

**产品介绍 background:**

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].

**Function:**

Controls the night/day rhythm of melatonin production in the pineal gland. Catalyzes the N-acetylation of serotonin into N-acetylserotonin, the penultimate step in the synthesis of melatonin.

**Subunit:**

Monomer (By similarity). Interacts with several 14-3-3 proteins, including YWHAB, YWHAE, YWHAG and YWHAZ, preferentially when phosphorylated at Thr-31. Phosphorylation on Ser-205 also allows binding to YWHAZ, but with lower affinity. The interaction with YWHAZ considerably increases affinity for arylalkylamines and acetyl-CoA and protects the enzyme from dephosphorylation and proteasomal degradation (By similarity). It may also prevent thiol-dependent inactivation (By similarity).

**Subcellular Location:**

Cytoplasm.

**Tissue Specificity:**

Highly expressed in pineal gland and at lower levels in the retina. Weak expression in several brain regions and in the pituitary gland.

**Post-translational modifications:**

cAMP-dependent phosphorylation on both N-terminal Thr-31 and C-terminal Ser-205 regulates AANAT activity by

promoting interaction with 14-3-3 proteins.

**DISEASE:**

Delayed sleep phase syndrome (DSPS) [MIM:614163]: A circadian rhythm sleep disorder characterized by sleep-onset insomnia and difficulty in awakening at the desired time. Patients with DSPS have chronic difficulty in adjusting their sleep-onset and wake-up times to occupational, school, and social activities. Note=Disease susceptibility may be associated with variations affecting the gene represented in this entry. Susceptibility to delayed sleep phase syndrome can be conferred by variant Thr-129. Thr-129 shows a significantly higher frequency in affected individuals than in healthy controls.

**Similarity:**

Belongs to the acetyltransferase family. AANAT subfamily.

Contains 1 N-acetyltransferase domain.

**SWISS:**

Q16613

**Gene ID:**

15

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**AANAT-褪黑素合成限速酶.**

产品图片