

## Basic Information

<b>Product Name</b>	Anti-AANAT Antibody
<b>Gene Name</b>	Aanat
<b>Source</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Species Reactivity</b>	mouse
<b>Tested Application</b>	WB,ELISA
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.
<b>Immunogen</b>	E.coli-derived mouse Aanat recombinant protein (Position: C24-C205).
<b>Concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	23 kDa
<b>Dilution Ratios</b>	Western blot (WB):1:500-2000 ELISA: 1:100-1000

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Aralkylamine N-acetyltransferase (AANAT) (EC 2.3.1.87), also known as arylalkylamine N-acetyltransferase or serotonin N-acetyltransferase (SNAT), is an enzyme that is involved in the day/night rhythmic production of melatonin, by modification of serotonin. It is in humans encoded by the ~2.5 kb AANAT gene containing four exons, located on chromosome 17q25. 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.

## Selected Validation Data

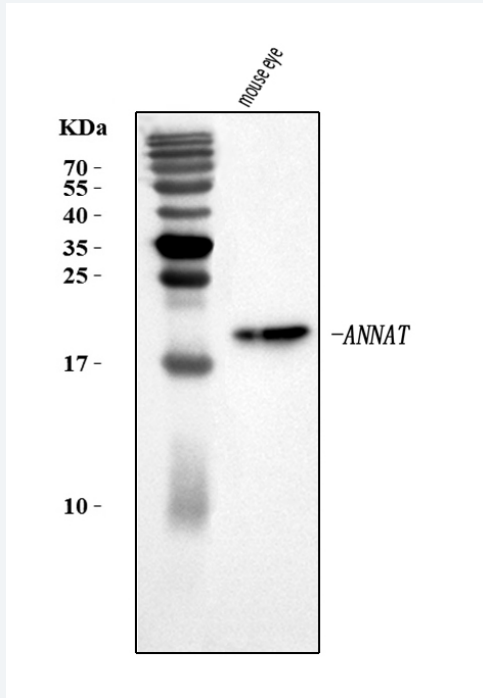


Figure 1. Western blot analysis of anti- Aanat antibody (A03784-1). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: mouse eye tissue lysates.

Use rabbit anti- Aanat 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for Aanat at approximately 23kD. The expected band size for Aanat is at 23kD.