

Basic Information

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

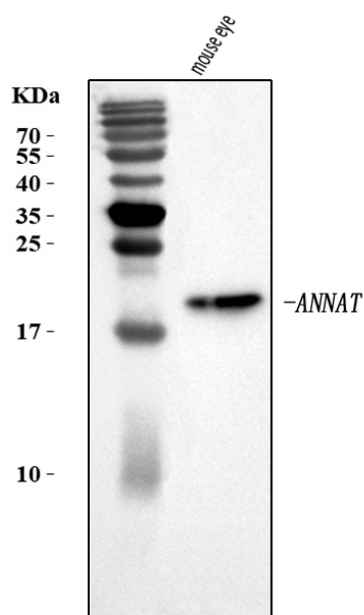
Storage

12 months from date of receipt, -20°C as supplied.

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



Western blot analysis of AANAT using anti-AANAT antibody (A03784-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: mouse eye tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-AANAT antigen affinity purified polyclonal antibody (A03784-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for AANAT at approximately 23 kDa. The expected band size for AANAT is at 23 kDa.