10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AANAT Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9626a

Product Information

Application	WB, E
Primary Accession	Q16613
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23834
Calculated MW	23344
Antigen Region	27-54

Additional Information

Gene ID	15
Other Names	Serotonin N-acetyltransferase, Serotonin acetylase, Aralkylamine N-acetyltransferase, AA-NAT, AANAT, SNAT
Target/Specificity	This AANAT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 27-54 amino acids from the N-terminal region of human AANAT.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AANAT Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AANAT
Synonyms	SNAT
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.
Cellular Location	Cytoplasm.
Tissue Location	Highly expressed in pineal gland and at lower levels in the retina. Weak expression in several brain regions and in the pituitary gland.

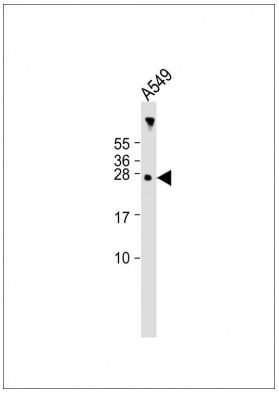
Background

AANAT 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.

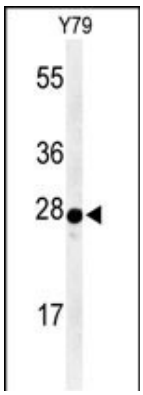
References

Mansour, H.A., et al. Bipolar Disord 11(7):701-710(2009)
Gratacos, M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009)
Anderson, B.M., et al. Neurogenetics 10(3):209-216(2009)

Images



Anti-AANAT Antibody (N-term) at 1:2000 dilution + A549 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 23 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of AANAT Antibody (N-term) (Cat. #AP9626a) in Y79 cell line lysates (35ug/lane). AANAT (arrow) was detected using the purified Pab.