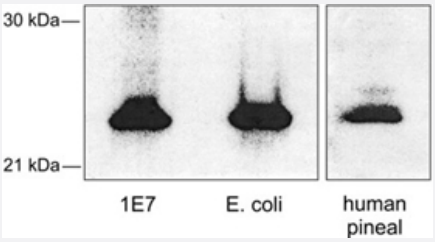
AANAT polyclonal antibody

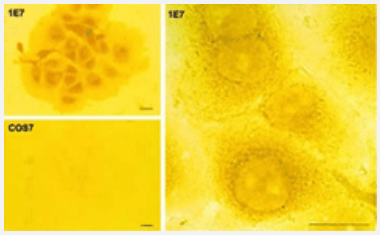
Catalog # PAB12505 Size 100 uL

Applications



Western Blot

Western blot analysis of AANAT using AANAT polyclonal antibody (Cat # PAB12505). Samples of 1E7 homogenates and bacterially expressed hAANAT were loaded, which contained similar levels of AANAT activity.



Immunocytochemistry

AANAT in COS-7 and 1E7 cells detected by ICC using AANAT polyclonal antibody (PAB12505). Cells were grown on two-well chamber slides and fixed with 2.5% glutaraldehyde; 1E7 cells treated with FSK for 3 h (two magnifications). COS, COS-7 cells treated with FSK for 3 h.

Specification

Product Description	Rabbit polyclonal antibody raised against AANAT.
Immunogen	Human AANAT.
Host	Rabbit
Reactivity	Human, Primates
Specificity	This antibody is specific to primate AANAT.
Form	Liquid
Quality Control Testing	Antibody Reactive Against AANAT.

Recommend Usage	Western Blot (1:500-1:1000) Immunocytochemistry (1:200) The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS (0.1% BSA, 0.05% thimerosal)
Storage Instruction	Store at 4°C for short term. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains thimerosal: a POISONOUS AND HAZARDOUS SUBSTANCE which should b e handled by trained staff only.

Applications

- Western Blot

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Gene Info — AANAT

Entrez GeneID	15
Protein Accession#	U40347
Gene Name	AANAT
Gene Alias	AA-NAT, SNAT
Gene Description	arylalkylamine N-acetyltransferase
Omim ID	600950
Gene Ontology	Hyperlink

Gene Summary	Arylalkylamine N-acetyltransferase belongs to the superfamily of acetyltransferases. 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 seasonal reproduction, modulates the function of the circadian clock in the suprachiasmatic nucleus, and influences activity and sleep. This enzyme is rapidly inactivated when animals are exposed to light at night. This protein is 80% identical to sheep and rat AA-NAT. Arylalkylamine N-acetyltransferase may contribute a multifactorial genetic diseases such as altered behavior in sleep/wake cycle. [provided by RefSeq
Other Designations	serotonin N-acetyltransferase

Publication Reference

- Arylalkylamine N-acetyltransferase: "the Timezyme".

  Klein DC.

  The Journal of Biological Chemistry 2007 Feb; 282(7):4233.

  Application: IHC, Fish, Pinealocyte, Retinal photoreceptor

- Melatonin synthesis enzymes in Macaca mulatta: focus on arylalkylamine N-acetyltransferase (EC 2.3.1.87).

  Coon SL, Del Olmo E, Young WS 3rd, Klein DC.

  The Journal of Clinical Endocrinology and Metabolism 2002 Oct; 87(10):4699.

  Application: WB-Ti, Monkey, Pineal glands, Retinas

- 14-3-3 Proteins and photoneuroendocrine transduction: role in controlling the daily rhythm in melatonin.

  Klein DC, Ganguly S, Coon S, Weller JL, Obsil T, Hickman A, Dyda F.

  Biochemical Society Transactions 2002 Aug; 30(4):365.

- Retinal melatonin production: role of proteasomal proteolysis in circadian and photic control of arylalkylamine N-acetyltransferase.

  Iuvone PM, Brown AD, Haque R, Weller J, Zawilska JB, Chaurasia SS, Ma M, Klein DC.

  Investigative Ophthalmology & Visual Science 2002 Feb; 43(2):564.

  Application: WB-Ti, Chicken, Retina, Pineal gland

- cAmp regulation of arylalkylamine N-acetyltransferase (AANAT, EC 2.3.1.87): a new cell line (1E7) provides evidence of intracellular AANAT activation.

  Coon SL, Weller JL, Korf HW, Namboodiri MA, Rollag M, Klein DC.

  The Journal of Biological Chemistry 2001 Jun; 276(26):24097.

  Application: ICC, WB-Ce, Monkey, COS-7, 1E7 cells

Pathway

- Metabolic pathways
- Tryptophan metabolism

Disease

- Autistic Disorder
- Bipolar Disorder
- Child Development Disorders
- Depressive Disorder
- Genetic Predisposition to Disease
- Mental Disorders
- Psychiatric Status Rating Scales
- Psychotic Disorders
- Schizophrenia
- Scoliosis
- Sleep
- Sleep Disorders
- Wakefulness