

**bs-3914R****[ Primary Antibody ]****AANAT Rabbit pAb****BioSS**  
**ANTIBODIES**

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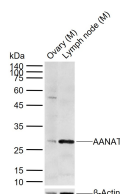
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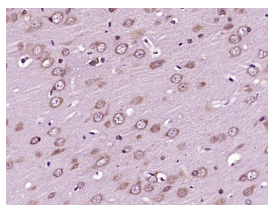
400-901-9800

**— DATASHEET —**

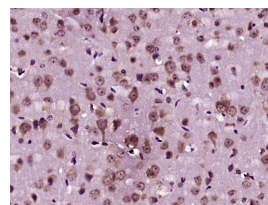
<b>Host:</b> Rabbit <b>Clonality:</b> Polyclonal <b>GeneID:</b> 15 <b>Target:</b> AANAT <b>Immunogen:</b> KLH conjugated synthetic peptide derived from human AANAT: 141-207/207. <b>Purification:</b> affinity purified by Protein A <b>Concentration:</b> 1mg/ml <b>Storage:</b> 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles. <b>Background:</b> 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].	<b>Isotype:</b> IgG <b>SWISS:</b> Q16613	<b>Applications:</b> <b>WB</b> (1:500-2000) <b>IHC-P</b> (1:100-500) <b>IHC-F</b> (1:100-500) <b>IF</b> (1:100-500) <b>Reactivity:</b> Mouse, Rat (predicted: Human, Dog) <b>Predicted MW.:</b> 23 kDa <b>Subcellular Location:</b> Cytoplasm
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**— VALIDATION IMAGES —**

Sample: Lane 1: Mouse Ovary tissue lysates  
Lane 2: Mouse Lymph node tissue lysates  
Primary: Anti-AANAT (bs-3914R) at 1/1000 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 23 kDa  
Observed band size: 28 kDa



Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (AANAT) Polyclonal Antibody, Unconjugated (bs-3914R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (AANAT) Polyclonal Antibody, Unconjugated (bs-3914R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

**— SELECTED CITATIONS —**

- **[IF=14.3]** Shiyin Li. et al. Homeostatic Shrinkage of Dendritic Spines Requires Melatonin Type 3 Receptor Activation During Sleep. ADV SCI. 2024 Aug;;2400253 IHC ;Rat. 39119847
- **[IF=5.249]** Zhang, WL.. et al. Expression of arylalkylamine n-acetyltransferase (AANAT) and acetylserotonin o-methyltransferase (ASMT) in the corpus luteum of pregnant sows and synthesis of melatonin in luteal cells. 2021 Nov 24 WB,IHC ;Pig. 34816281

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

- **[IF=2.589]** Xiao L et al. Profile of melatonin and its receptors and synthesizing enzymes in cumulus-oocyte complexes of the developing sheep antral follicle-a potential estradiol-mediated mechanism. *Reprod Biol Endocrinol.* 2019 Jan 3;17(1):1. IHC,WB ;Sheep. 30606208
- **[IF=2.923]** Hongwei Duan. et al. Melatonin regulates dihydrotestosterone formation via its membrane receptor in the epididymal epithelial cells of sheep. *THERIOGENOLOGY.* 2022 Dec;; WB ;Sheep. 36623430
- **[IF=2.7]** Tian Niu. et al. Melatonin Sources in Sheep Rumen and Its Role in Reproductive Physiology. *ANIMALS.* 2024 Jan;14(23):3451 WB ;Sheep. 39682413