

Product datasheet

AANAT peptide ab5004

Description

Product name	AANAT peptide
Animal free	No
Nature	Synthetic

Specifications

Our [Abpromise guarantee](#) covers the use of **ab5004** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Blocking
Form	Lyophilized

Additional notes

This peptide may be used for neutralization and control experiments with the polyclonal antibody that reacts with this product and AA-NAT, catalog [ab3506](#). Using a solution of peptide of equal volume and concentration to the corresponding antibody will yield a large molar excess of peptide (~ 70-fold) for competitive inhibition of antibody-protein binding reactions.

This product was previously labelled as Serotonin N-acetyltransferase

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Reconstitution	>95% pure, lyophilized synthetic peptide. Reconstitute with 0.1 ml of distilled water.

General Info

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.
Tissue specificity	Highly expressed in pineal gland and at lower levels in the retina. Weak expression in several brain regions and in the pituitary gland.
Pathway	Aromatic compound metabolism; melatonin biosynthesis; melatonin from serotonin: step 1/2.
Involvement in disease	Delayed sleep phase syndrome

Sequence similarities	Belongs to the acetyltransferase family. AANAT subfamily. Contains 1 N-acetyltransferase domain.
Post-translational modifications	cAMP-dependent phosphorylation on both N-terminal Thr-31 and C-terminal Ser-205 regulates AANAT activity by promoting interaction with 14-3-3 proteins.
Cellular localization	Cytoplasm.

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