

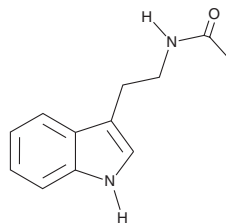
# PRODUCT INFORMATION



## N-acetyl Tryptamine

Item No. 18605

CAS Registry No.: 1016-47-3  
Formal Name: N-[2-(1H-indol-3-yl)ethyl]-acetamide  
MF:  $C_{12}H_{14}N_2O$   
FW: 202.3  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{\max}$ : 222, 282, 290 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

For long term storage, we suggest that N-acetyl tryptamine be stored as supplied at  $-20^{\circ}\text{C}$ . It should be stable for at least two years.

N-acetyl Tryptamine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-acetyl tryptamine in the solvent of choice. N-acetyl Tryptamine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of N-acetyl tryptamine in these solvents is approximately 20, 5, and 10 mg/ml, respectively.

N-acetyl Tryptamine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, N-acetyl tryptamine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. N-acetyl Tryptamine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

N-acetyl Tryptamine is a structural analog of melatonin (5-methoxy-N-acetyltryptamine; Item No. 14427) that binds the melatonin  $MT_2$  receptor ( $K_i = 41$  nM).<sup>1</sup> It acts as a melatonin receptor antagonist in frog skin and chicken retina and as a partial agonist in rabbit retina.<sup>2-4</sup> N-acetyl Tryptamine is also a reaction product of assays for serotonin N-acetyltransferase, the penultimate enzyme in the melatonin biosynthetic pathway.<sup>5</sup>

### References

1. Sugden, D., Pickering, H., Teh, M.T., *et al.* Melatonin receptor pharmacology: Toward subtype specificity. *Biol. Cell* **89**(8), 531-537 (1997).
2. Dubocovich, M.L. Characterization of a retinal melatonin receptor. *J. Pharmacol. Exp. Ther.* **234**(2), 395-401 (1985).
3. Nonno, R., Pannacci, M., Lucini, V., *et al.* Ligand efficacy and potency at recombinant human  $MT_2$  melatonin receptors: Evidence for agonist activity of some  $mt_1$ -antagonists. *Br. J. Pharmacol.* **127**(5), 1288-1294 (2016).
4. Dubocovich, M.L., Masana, M.I., Iacob, S., *et al.* Melatonin receptor antagonists that differentiate between the human  $Mel_{1a}$  and  $Mel_{1b}$  recombinant subtypes are used to assess the pharmacological profile of the rabbit retina  $ML_1$  presynaptic heteroreceptor. *Naunyn Schmiedeberg's Arch. Pharmacol.* **355**(3), 365-375 (1997).
5. DeAngelis, J., Gastel, J., Klein, D.C., *et al.* Kinetic analysis of the catalytic mechanism of serotonin N-acetyltransferase (EC 2.3.1.87). *J. Biol. Chem.* **273**(5), 3045-3050 (1998).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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