

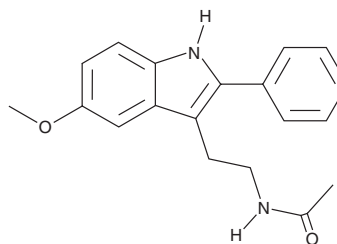
PRODUCT INFORMATION



2-Phenylmelatonin

Item No. 35004

CAS Registry No.: 151889-03-1
Formal Name: N-[2-(5-methoxy-2-phenyl-1H-indol-3-yl)ethyl]-acetamide
Synonym: N-acetyl-5-methoxy-2-phenyl Tryptamine
MF: C₁₉H₂₀N₂O₂
FW: 308.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

2-Phenylmelatonin is supplied as a solid. A stock solution may be made by dissolving the 2-phenylmelatonin in the solvent of choice, which should be purged with an inert gas. 2-Phenylmelatonin is soluble in organic solvents such as ethanol and DMSO. The solubility of 2-phenylmelatonin in these solvents is approximately 100 mM.

Description

2-Phenylmelatonin is a melatonin 1 (MT₁) and MT₂ receptor mixed partial agonist and antagonist.¹⁻³ It selectively binds to MT₁ and MT₂ receptors (K_is = 0.02 and 0.09 nM, respectively, in HEK293 cells expressing the human receptors) over the MT₃ receptor (K_i = 33 nM in hamster brain membranes).¹ 2-Phenylmelatonin induces [³⁵S]GTPγS binding to NIH3T3 cell membranes expressing the human MT₂ receptor (EC₅₀ = 0.058 nM).² It induces contractions (EC₅₀ = 0.5 nM) and inhibits melatonin-induced contractions in isolated guinea pig proximal colon strips when used at a concentration of 0.1 nM.³ 2-Phenylmelatonin reduces intraocular pressure in rabbits (pD₂ = 8.7).⁴

References

1. Nosjean, O., Nicolas, J.P., Klupsch, F., *et al.* Comparative pharmacological studies of melatonin receptors: MT₁, MT₂ and MT₃/QR2. Tissue distribution of MT₃/QR2. *Biochem. Pharmacol.* **61(11)**, 1369-1379 (2001).
2. Nonno, R., Pannacci, M., Lucini, V., *et al.* Ligand efficacy and potency at recombinant human MT₂ melatonin receptors: Evidence for agonist activity of some MT₁-antagonists. *Brit. J. Pharmacol.* **127(5)**, 1288-1294 (2016).
3. Santagostino-Barbone, M.G., Masoero, E., Spelta, V., *et al.* 2-Phenylmelatonin: A partial agonist at enteric melatonin receptors. *Pharmacol. Toxicol.* **87(4)**, 156-160 (2000).
4. Pintor, J., Peláez, T., Hoyle, C.H.V., *et al.* Ocular hypotensive effects of melatonin receptor agonists in the rabbit: Further evidence for an MT₃ receptor. *Br. J. Pharmacol.* **138(5)**, 831-836 (2003).

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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