

Certificate of Analysis

Product Name: 6-Chloromelatonin

Catalog No.: 0443

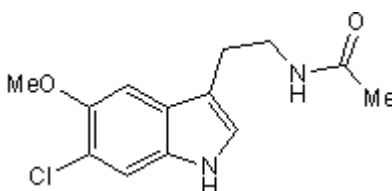
Batch No.: 2

CAS Number: 63762-74-3

IUPAC Name: *N*-[2-(6-Chloro-5-methoxyindol-3-yl)ethyl]acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₅ClN₂O₂
Batch Molecular Weight: 266.73
Physical Appearance: White crystalline solid
Solubility: DMSO to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.35 (Chloroform:Methanol [95:5])
Melting Point: Between 148 - 149°C
HPLC: Shows >99.6% purity
¹H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen		
Theoretical	58.54	5.67	10.5	0	0
Found	58.35	5.58	10.41	0	0

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent melatonin agonist (pK_i values are 9.10 and 9.77 for human recombinant MT₁ and MT₂ receptors respectively). Displays higher affinity for binding to hamster brain membrane and chicken retina than melatonin.

Physical and Chemical Properties:

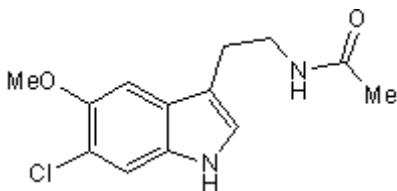
Batch Molecular Formula: C₁₃H₁₅ClN₂O₂

Batch Molecular Weight: 266.73

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Browning *et al* (2000) Pharmacological characterization of human recombinant melatonin mt₁ and MT₂ receptors. *Br.J.Pharmacol.* **129** 877. PMID: 10696085.

Dubocovich (1995) Melatonin receptors: are there multiple subtypes? *TiPS* **16** 50. PMID: 7762083.

Dubocovich (1988) Luzindole (NO 774): A novel melatonin receptor antagonist. *J.Pharmacol.Exp.Ther.* **246** 902. PMID: 2843633.

Duncan *et al* (1988) 2-[¹²⁵I]iodomelatonin binding sites in hamster brain membranes: pharmacological characteristics and regional distribution. *Endocrinology* **122** 1825. PMID: 2834175.

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