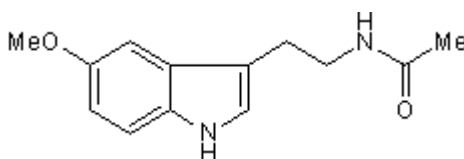


Product Name: Melatonin
CAS Number: 73-31-4
IUPAC Name: *N*-Acetyl-5-methoxytryptamine

Catalog No.: 3550 **Batch No.:** 1
EC Number: 200-797-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₆N₂O₂
Batch Molecular Weight: 232.28
Physical Appearance: white solid
Solubility: DMSO to 50 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.22	6.94	12.06
Found	67.28	6.77	12.08

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

Product Name: Melatonin

CAS Number: 73-31-4

IUPAC Name: *N*-Acetyl-5-methoxytryptamine

Catalog No.: 3550

Batch No.: 1

EC Number: 200-797-7

Description:

Endogenous hormone that acts as an agonist at melatonin receptors MT₁ and MT₂. Exhibits a prominent role in the control of circadian rhythm, displays immunomodulatory activity and acts as a powerful antioxidant in vivo.

Physical and Chemical Properties:

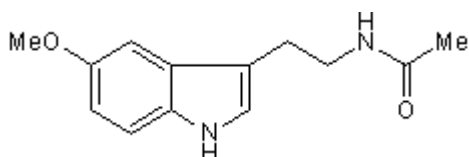
Batch Molecular Formula: C₁₃H₁₆N₂O₂

Batch Molecular Weight: 232.28

Physical Appearance: white solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 50 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:

Bubenik (2008) Thirty four years since the discovery of gastrointestinal melatonin. *J.Physiol.Pharmacol.* **59** 33. PMID: 18812627.

Fischer et al (2008) Melatonin as a major skin protectant: from free radical scavenging to DNA damage repair. *Exp.Dermatol.* **17** 713. PMID: 18643846.

Cardinali et al (2009) Melatonin and melatonergic drugs on sleep: possible mechanisms of action. *Int.J.Neurosci.* **119** 821. PMID: 19326288.

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