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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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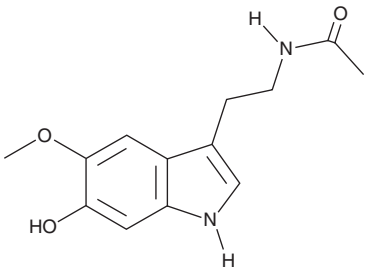
PRODUCT INFORMATION

6-hydroxy Melatonin

Item No. 21857



CAS Registry No.:	2208-41-5
Formal Name:	N-[2-(6-hydroxy-5-methoxy-1H-indol-3-yl)ethyl]-acetamide
Synonym:	6-OHM
MF:	$C_{13}H_{16}N_2O_3$
FW:	248.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 219, 303 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years

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

Laboratory Procedures

6-hydroxy Melatonin is supplied as a crystalline solid. A stock solution may be made by dissolving the 6-hydroxy melatonin in the solvent of choice. 6-hydroxy Melatonin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 6-hydroxy melatonin in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

6-hydroxy Melatonin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 6-hydroxy melatonin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 6-hydroxy Melatonin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

6-hydroxy Melatonin is an active metabolite of melatonin (Item No. 14427).[1-5] It is formed from melatonin by the cytochrome P450 (CYP) isoform CYP1A2 in human liver microsomes[6] 6-hydroxy Melatonin is a melatonin 1A (MT_{1A}), MT_{1B}, and MT_2 receptor agonist.[1,2] It inhibits dopamine release from isolated rabbit retina (IC_{50} = 0.0016 µM).[3] 6-hydroxy Melatonin (10 and 100 µM) reduces increases in the levels of NF-κB, IL-6, and IL-8 and decreases in glutathione (GSH) levels in LPS- and peptidoglycan G-stimulated human umbilical vein endothelial cells (HUVECs) in an *in vitro* model of sepsis.[4] It reduces iron-induced lipid oxidation in rat hippocampal homogenate when administered at a dose of 10 mg/kg.[5]

References

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4. Lowes, D.A., Almawash, A.M., Webster, N.R., *et al. Br. J. Anaesth.* **107(2)**, 193-201 (2011).
5. Maharaj, D.S., Maharaj, H., Daya, S., *et al. J. Neurochem.* **96(1)**, 78-81 (2006).
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