

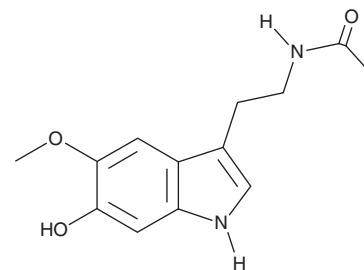
# PRODUCT INFORMATION



## 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<sub>13</sub>H<sub>16</sub>N<sub>2</sub>O<sub>3</sub>  
**FW:** 248.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 219, 303 nm  
**Supplied as:** A crystalline 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

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, which should be purged with an inert gas. 6-hydroxy Melatonin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). 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).<sup>1-5</sup> It is formed from melatonin by the cytochrome P450 (CYP) isoform CYP1A2 in human liver microsomes<sup>6</sup> 6-hydroxy Melatonin is a melatonin 1A (MT<sub>1A</sub>), MT<sub>1B</sub>, and MT<sub>2</sub> receptor agonist.<sup>1,2</sup> It inhibits dopamine release from isolated rabbit retina (IC<sub>50</sub> = 0.0016 μM).<sup>3</sup> 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.<sup>4</sup> It reduces iron-induced lipid oxidation in rat hippocampal homogenate when administered at a dose of 10 mg/kg.<sup>5</sup>

### References

1. Dubocovich, M.L., Masana, M.I., Iacob, S., et al. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **355(3)**, 365-375 (1997).
2. Dubocovich, M.L. *Trends Pharmacol. Sci.* **16(2)**, 50-56 (1995).
3. Dubocovich, M.L. *J. Pharmacol. Exp. Ther.* **234(2)**, 395-401 (1985).
4. Lowes, D.A., Alwash, 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).
6. Härtter, S., Wang, X., Weigmann, H., et al. *J. Clin. Psychopharmacol.* **21(2)**, 167-174 (2001).

#### 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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