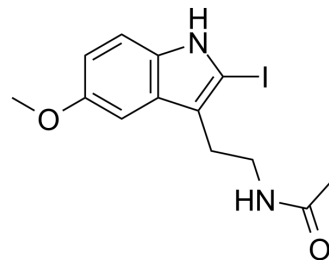


2-Iodomelatonin

Cat. No.:	HY-101176		
CAS No.:	93515-00-5		
Molecular Formula:	C ₁₃ H ₁₅ IN ₂ O ₂		
Molecular Weight:	358.17		
Target:	Melatonin Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 30 mg/mL (83.76 mM; Need ultrasonic and warming)
 DMF : 30 mg/mL (83.76 mM; Need ultrasonic and warming)
 Ethanol : 20 mg/mL (55.84 mM; Need ultrasonic and warming)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7920 mL	13.9599 mL	27.9197 mL
	5 mM	0.5584 mL	2.7920 mL	5.5839 mL
	10 mM	0.2792 mL	1.3960 mL	2.7920 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (6.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2-Iodomelatonin is a potent agonist of melatonin receptor 1 (MT₁) with a K_i value of 28 pM, it is more 5-fold selective for MT₁ over MT₂^[1]. 2-Iodomelatonin can be used to identify, characterize and localize melatonin binding sites in the brain and peripheral tissues^[1].

In Vitro

2-Iodomelatonin (0-7.5 μM; 18 hours) shares the protective properties of melatonin, it inhibits cell death of mutant htt ST14A and inhibits the increase in Rip2 expression in stressed mutant htt ST14A cells^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[2]

Cell Line:	Mutant htt ST14A cell
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Concentration:	0 μ M; 1 μ M; 5 μ M; 7.5 μ M
Incubation Time:	18 hours
Result:	Inhibited mutant htt ST14A cell death.

CUSTOMER VALIDATION

- Nat Commun. 2022 Jan 24;13(1):454.
- Zool Res. 2022 Jul 18;43(4):537-551.

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REFERENCES

- [1]. Tomkinson A, et al. A murine IL-4 receptor antagonist that inhibits IL-4- and IL-13-induced responses prevents antigen-induced airway eosinophilia and airway hyperresponsiveness. J Immunol. 2001 May 1;166(9):5792-800.
- [2]. Wang X, et al. The melatonin MT1 receptor axis modulates mutant Huntingtin-mediated toxicity. J Neurosci. 2011 Oct 12;31(41):14496-507.

Caution: Product has not been fully validated for medical applications. For research use only.

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