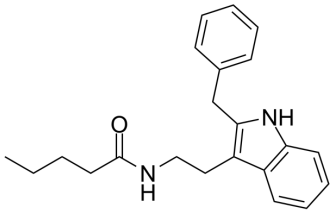
DH97

Cat. No.:	HY-107628
CAS No.:	220339-00-4
Molecular Formula:	$C_{22}H_{26}N_2O$
Molecular Weight:	334.45
Target:	Melatonin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DH97 is a potent and selective antagonist of MT_2 melatonin receptor, with a pK_i of 8.03 for human MT_2. DH97 shows 89- and 229-fold selectivity for human MT_2 over human mt_1 and Xenopus mel_{1c} receptor subtypes. DH97 can inhibit melatonin-induced enhancement of electrically-evoked responses[1][2].	
IC_{50} & Target	MT2 8.03 (pKi)	MT1 6.08 (pKi)
In Vitro	DH97 (compound 9) (0.1-100 μM; 2 h) antagonizes pigment aggregation induced by melatonin (10 nM) in Xenopus laevis melanophores[1]. DH97 has no agonist activity at concentrations up to 100 μM[1]. DH97 (60 nM) significantly alteres the potency of melatonin in the rat tail artery at low concentrations of the MT2 selective ligands, with a pEC_{50} of 8.83[2]. DH97 (5 μM) causes a significant rightward displacement of the vasoconstrictor effect of melatonin at concentrations non-selective for mt1 and MT_2 receptors[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

[1]. Teh MT, et, al. Comparison of the structure-activity relationships of melatonin receptor agonists and antagonists: lengthening the N-acyl side-chain has differing effects on potency on Xenopus melanophores. Naunyn Schmiedebergs Arch Pharmacol. 1998 Nov;358(5):522-8.

[2]. Ting KN, et, al. Molecular and pharmacological evidence for MT1 melatonin receptor subtype in the tail artery of juvenile Wistar rats. Br J Pharmacol. 1999 Jun;127(4):987-95.

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