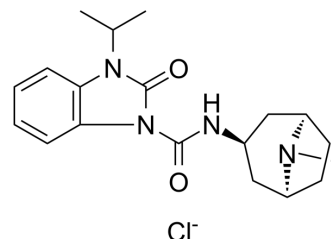


BIMU 8

Cat. No.:	HY-110094
CAS No.:	134296-40-5
Molecular Formula:	C ₁₉ H ₂₆ ClN ₄ O ₂ ⁻
Molecular Weight:	377.89
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	BIMU 8 is a potent and selective 5-HT ₄ agonist with EC ₅₀ s of 18 nM, 77 nM, and 540 nM for wild type 5HT ₄ receptor, T3.36A, and W6.48A mutant 5-HT ₄ receptors ^{[1][2]} .		
IC₅₀ & Target	5-HT ₄ Receptor 18 nM (EC ₅₀)	T3.36A-5-HT ₄ 77 nM (EC ₅₀)	W6.48A-5-HT ₄ 540 nM (EC ₅₀)
In Vitro	In myenteric neurons of guinea pig ileum, BIMU 8 (0.003-0.1 μM) increases excitatory postsynaptic potentials (EPSPs) amplitude but does not change the membrane potential of any neuron ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		
In Vivo	In mice and rats, BIMU 8 (20-30 mg/kg s.c. and 60 mg/kg p.o. in mice; 20 mg/kg i.p. in rats), produces significant antinociception. Intracerebroventricular injection in mice of BIMU 8 (10 μg/mouse), doses which are largely ineffective by parenteral routes, induces an antinociception whose intensity equaled that obtainable s.c., i.p. or p.o. ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

- [1]. C Ghelardini, et al. Central cholinergic antinociception induced by 5HT₄ agonists: BIMU 1 and BIMU 8. *Life Sci.* 1996;58(25):2297-309.
- [2]. Lucie P Pellissier, et al. Conformational toggle switches implicated in basal constitutive and agonist-induced activated states of 5-hydroxytryptamine-4 receptors. *Mol Pharmacol.* 2009 Apr;75(4):982-90.
- [3]. H Pan, et al. 5-HT_{1A} and 5-HT₄ receptors mediate inhibition and facilitation of fast synaptic transmission in enteric neurons. *Am J Physiol.* 1994 Feb;266(2 Pt 1):G230-8.

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

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