

PRODUCT INFORMATION

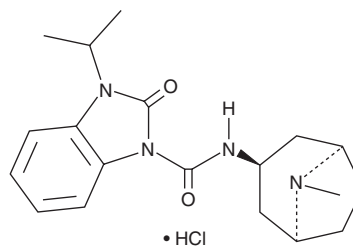


BIMU 8

Item No. 30964

CAS Registry No.: 134296-40-5
Formal Name: 2,3-dihydro-N-[(3-endo)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl]-3-(1-methylethyl)-2-oxo-1H-benzimidazole-1-carboxamide, monohydrochloride

MF: C₁₉H₂₆N₄O₂ • HCl
FW: 378.9
Purity: ≥98%
Supplied as: A 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

BIMU 8 is supplied as a solid. A stock solution may be made by dissolving the BIMU 8 in the solvent of choice, which should be purged with an inert gas. BIMU 8 is soluble in the organic solvent DMSO. It is also soluble in water. The solubility of BIMU 8 in DMSO and water is approximately 100 and 75 mM, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

BIMU 8 is an agonist of the serotonin (5-HT) receptor subtype 5-HT₄ (K_i = 69 nM).¹ It also binds 5-HT₃ receptors (K_i = 0.36 nM). It stimulates cAMP formation in primary mouse embryonic colliculi neurons with an EC₅₀ value of 72 nM.² BIMU 8 (30, 40, and 60 nmol/animal, i.c.v.) induces acetylcholine release in the rat frontal cortex.³ It increases postprandial antral and colonic motility in conscious dogs when administered at doses of 0.1, 0.3, and 1 mg/kg.⁴ BIMU 8 (20 mg/kg, i.p.) also increases the latency to withdraw in the paw pressure test in rats.⁵

References

1. Schiavi, G.B., Brunet, S., Rizzi, C.A., *et al.* Identification of serotonin 5-HT₄ recognition sites in the porcine caudate nucleus by radioligand binding. *Nueropharmacology*. **33(3-4)**, 543-549 (1994).
2. Dumuis, A., Sebben, M., Monferini, E., *et al.* Azabicycloalkyl benzimidazolone derivatives as a novel class of potent agonists at the 5-HT₄ receptor positively coupled to adenylate cyclase in brain. *Naunyn Schmiedebergs Arch. Pharmacol.* **343(3)**, 245-251 (1991).
3. Consolo, S., Arnaboldi, S., Giorgi, S., *et al.* 5-HT₄ receptor stimulation facilitates acetylcholine release in rat frontal cortex. *Neuroreport*. **5(10)**, 1230-1232 (1994).
4. Mine, Y., Yoshikawa, T., Oku, S., *et al.* Comparison of effect of mosapride citrate and existing 5-HT₄ receptor agonists on gastrointestinal motility *in vivo* and *in vitro*. *J. Pharmacol. Exp. Ther.* **283(3)**, 1000-1008 (1997)
5. Ghelardini, C., Galeotti, N., Casamenti, F., *et al.* Central cholinergic antinociception induced by 5HT₄ agonists: BIMU 1 and BIMU 8. *Life Sci.* **58(25)**, 2297-2309 (1996).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/12/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM