Contulakin G

Cat. No.:	HY-P0066
CAS No.:	229180-41-0
Molecular Formula:	$C_{88}H_{140}N_{20}O_{37}$
Molecular Weight:	2070.17
Target:	Neurotensin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Contulakin G is an O-glycosylated invertebrate neurotensin. Contulakin-G is a weaker agonist for the neurotensin receptor. Contulakin G is also a potent antinociceptive agent[1][2].

In Vivo

Contulakin G exhibits potent analgesic activity in three pain models in rats following intrathecal delivery, namely in tail-flick (acute pain), formalin test, and CFA-induced allodynia inflammatory pain[1].
Contulakin G (0-3 nmoL, Intrathecally) significantly decreases flinching behavior in rats[2].
Contulakin G (50-500 nmoL, Intrathecally) produces a dose-dependent increase in the thermally evoked skin twitch latency by 30 min after administration in dogs[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Holtzman rats (300-375 g)[2]
Dosage:	0.03, 0.1, 0.3, and 3 nmol
Administration:	Intrathecally, administered as a 10-μL bolus followed by a 10-μL saline flush
Result:	Produced a significant decrease in flinching in all phases of the formalin test in rats.

Animal Model:	Purpose-bred beagle dogs (9-12 kg)[2]
Dosage:	50, 150, or 500 nmol
Administration:	Intrathecally
Result:	Produced a dose-dependent increase in the thermally evoked skin twitch latency at 30 min after dosing in dogs, which reached statistical difference as compared to vehicle at 500 nmol.

REFERENCES

[1]. Lee HK, et al. A marine analgesic peptide, Contulakin-G, and neurotensin are distinct agonists for neurotensin receptors: uncovering structural determinants of desensitization properties. Front Pharmacol. 2015 Feb 10;6:11.

[2]. Allen JW, et al. An assessment of the antinociceptive efficacy of intrathecal and epidural contulakin-G in rats and dogs. Anesth Analg. 2007 Jun;104(6):1505-13, table of contents.

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