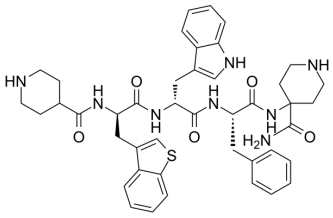
Relamorelin

Cat. No.:	HY-19884
CAS No.:	661472-41-9
Molecular Formula:	$C_{43}H_{50}N_8O_5S$
Molecular Weight:	790.97
Target:	GHSR
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Relamorelin (RM-131), a Ghrelin analog, is a potent ghrelin receptor agonist, with a K_i of 0.42 nM for GHS-1a. Relamorelin can promote food intake and adiposity in mice. Relamorelin can be used for the research of cachexia, gastroparesis, and gastric/intestinal dysmobility disorders[1][2][3].
IC_{50} & Target	Ki: 0.42 nM (GHS-1a)[1]
In Vitro	Relamorelin shows -3 times greater affinity for GHS-1a (K_i=0.42 nM) than native ghrelin (K_i=1. 12 nM)[1]. Relamorelin is 6 times more potent (EC_{50}=0.71 nM) in activating the GHS-1a receptor than native ghrelin (EC_{50}=4.2 nM) as assessed in vitro by calcium mobilization[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Relamorelin (500 nmol/kg/day; continuous infusion for 5 days) increases the food intake and weight gain in rats[1]. Relamorelin (50-500 nmol/kg/day; continuous infusion for 5 days) decreases the loss of body mass and fat mass[1]. RM-131 (250-500 nmol/kg; a single s.c.) stimulates acute food intake in wt but not growth hormone secretagogue receptor (GHR) ko mice[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	F344/NTacfBR male rats implanted with tumor[1]
Dosage:	50, 500 nmol/kg/day
Administration:	Continuous infusion at a rate of 0.5 μL/h for 5 d s.c.
Result:	Resulted in an increase in food intake (tumor/saline 41.4 g, tumor/BIM-28131 72.5 g) and weight gain (tumor/saline -10.3%, tumor/BIM-28131 +19.5%).

REFERENCES

[1]. DeBoer MD, et, al. Ghrelin treatment causes increased food intake and retention of lean body mass in a rat model of cancer cachexia. Endocrinology. 2007 Jun;148(6):3004-12.

[2]. Fischer K, et, al. The Pentapeptide RM-131 Promotes Food Intake and Adiposity in Wildtype Mice but Not in Mice Lacking the Ghrelin Receptor. Front Nutr. 2015 Jan

12;1:31.

[3]. Zatorski H, et, al. Relamorelin and other ghrelin receptor agonists - future options for gastroparesis, functional dyspepsia and proton pump inhibitors-resistant non-erosive reflux disease. J Physiol Pharmacol. 2017 Dec;68(6):797-805.

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