

Product Data Sheet

Product Name: Relamorelin TFA

Cat. No.: GC63727

Chemical Properties

Cas. No. 2863659-22-5

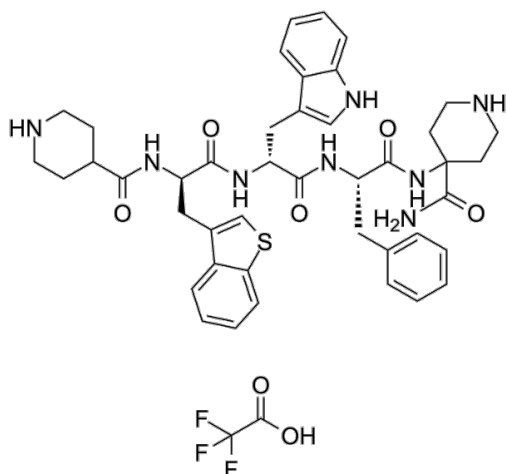
Formula $C_{45}H_{51}F_3N_8O_7S$ M.Wt 905

Solubility Water : 100 mg/mL (110.50 mM; Need ultrasonic) Storage -20°C , away from moisture

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Relamorelin (RM-131) TFA, a pentapeptide ghrelin analog, is a selective ghrelin/growth hormone secretagogue receptor (GHSR) agonist with a K_i of 0.42 nM for GHS-1a receptor. Relamorelin TFA is centrally penetrant. Relamorelin TFA increases growth hormone levels and accelerates gastric emptying. Relamorelin TFA has the potential for cachexia, gastroparesis, and gastric/intestinal dysmobility disorders research[1][2][3][4][5].

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

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Relamorelin (RM-131) TFA shows ~3 times greater affinity for GHS-1a ($K_i=0.42$ nM) than native ghrelin ($K_i=1.12$ nM). Relamorelin TFA 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].

Relamorelin (RM-131; 50-500 nmol/kg/day; s.c.; continuous infusion for 5 days) TFA decreases the loss of body mass and fat mass. Relamorelin (500 nmol/kg/day; continuous infusion for 5 days) TFA increases the food intake and weight gain in rats[1]. RM-131 (250-500 nmol/kg; a single s.c.) TFA stimulates acute food intake in wt but not growth hormone secretagogue receptor (GHR) ko mice[2].

[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.

[4]. Matthew Heckroth, et al. Nausea and Vomiting in 2021: A Comprehensive Update. *J Clin Gastroenterol*. 2021 Apr 1;55(4):279-299.

[5]. Victor Chedid, et al. Relamorelin for the treatment of gastrointestinal motility disorders. *Expert Opin Investig Drugs*. 2017 Oct;26(10):1189-1197.

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