

Product Data Sheet

Product Name: MM 07
Cat. No.: GC32475

Chemical Properties

Cas. No. 1876450-21-3

Formula $C_{67}H_{106}N_{22}O_{14}S_3$

M.Wt 1539.89

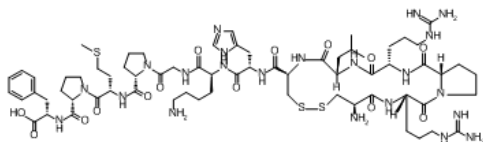
Solubility DMSO : 62.5 mg/mL (40.59 mM;
Need ultrasonic)

Storage Store at -20° C

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



Protocol

Animal experiment: Rats[1] Rats (230-260 g), anaesthetized with 2% isoflurane, are given a single intravenous bolus (600 nM) of apelin or MM 07 (both n=3)[1].

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

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References:

[1]. Brame AL, et al. Design, characterization, and first-in-human study of the vascular actions of a novel biased apelin receptor agonist. Hypertension. 2015 Apr;65(4):834-40.

Background

MM 07 is an apelin-biased receptor agonist with KD of 300 nM in CHO-K1 cells and 172 nM in human heart.

MM 07 competes with nanomolar affinity for binding to [Glp65,Nle75,Tyr77] [125I]apelin-13 is receptor-dependent on human apelin in CHO-K1 cells (KD, 300 nM) and human heart (KD, 172 nM, n=3). body [1].

MM 07 caused a dose-dependent increase in cardiac output with no corresponding effect on blood pressure despite a decrease in vascular resistance. In both the [Pyr1]apelin-13 and MM 07-treated groups, SNAP administration resulted in a significant decrease in blood pressure; however, while SNAP-responsive cardiac output was significantly increased in the MM 07 group, the [Pyr1]apelin-13 group Cardiac output is significantly reduced. Neither peptide caused significant changes in heart rate, breathing rate or temperature. [Pyr1] Both apelin 13 and MM 07 increase the peak speed above the base level [1].

References:

[1]. Brame AL et al. Design, characterization, and first-in-human studies of a novel biased apelin receptor agonist for vascular effects. hypertension. 2015 Apr;65(4):834-40.

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