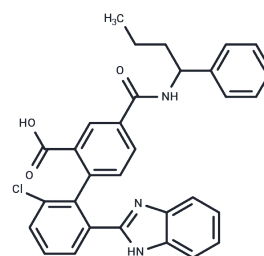


APJ receptor agonist 1

Chemical Properties

CAS No. :	2287153-38-0
Formula:	C ₃₁ H ₂₆ ClN ₃ O ₃
Molecular Weight:	524.02
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	APJ receptor agonist 1, a potent biphenyl acid derivative, acts as an agonist (EC ₅₀ of 0.093 nM and 0.12 nM for human and rat APJ receptors, respectively) for the APJ receptor (APJ-R). It exhibits significant in vitro potency towards apelin-13, the endogenous peptidic ligand for the APJ receptor. APJ receptor agonist 1 holds promise for heart failure research.
In vitro	The S-atropisomer of APJ receptor agonist 1 (compound 15a) exhibits 200 times greater potency than its R-atropisomer counterpart.[1].
In vivo	APJ receptor agonist 1, administered via intravenous infusion at dosages of 10-100 µg/min/kg, resulted in a 10% enhancement of cardiac output (CO) with negligible effects on blood pressure, specifically less than a 5% transient reduction. This outcome was observed in isoflurane-anesthetized male Sprague Dawley rats. The administration involved infusing the compound into the jugular vein for 15 minutes, demonstrating a dose-dependent increase in cardiac output without significant alterations in mean arterial blood pressure or heart rate[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9083 mL	9.5416 mL	19.0832 mL
5 mM	0.3817 mL	1.9083 mL	3.8166 mL
10 mM	0.1908 mL	0.9542 mL	1.9083 mL
50 mM	0.0382 mL	0.1908 mL	0.3817 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Su S, Clarke A, et al. Biphenyl Acid Derivatives as APJ Receptor Agonists. J Med Chem. 2019;62(22):10456-10465.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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