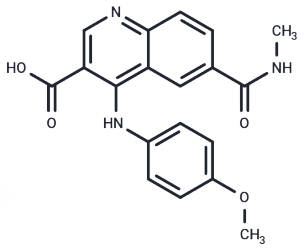
Data Sheet (Cat.No.T71368)

TargetMol

CLT-28643

Chemical Properties



CAS No. : 1153631-91-4

Formula: C19H17N3O4

Molecular Weight: 351.36

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	CLT-28643 is a potent and specific α5β1-Integrin inhibitor that prevents fibrosis in glaucoma filtration surgery (GFS), inhibits tumor growth and angiogenesis, suppresses fibrosis and inflammation in a bleomycin-induced lung fibrosis model, and improves insulin sensitivity and cardiac function in H9C2 cells from obese mice.
Targets(IC50)	Integrin
In vitro	In H9C2 cardiomyocytes, CLT-28643 (3 hours) was used to assess its effect on insulin signaling under metabolic stress, CLT-28643 prevented high glucose and palmitate-induced insulin resistance by significantly increasing the phosphorylated Akt (Ser473) to total Akt ratio, indicating restored insulin sensitivity. [1]
In vivo	In male C57BL/6 mice fed a high-fat-high-sucrose (HFHS) diet for 10 weeks, CLT-28643 (75 mg/kg; oral gavage; twice daily for 4 weeks) was administered to evaluate its cardiometabolic effect. CLT-28643 improved cardiac function by reversing the HFHS diet-induced elevation in heart rate, suggesting enhanced cardiovascular performance. [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8461 mL	14.2304 mL	28.4608 mL
5 mM	0.5692 mL	2.8461 mL	5.6922 mL
10 mM	0.2846 mL	1.423 mL	2.8461 mL
50 mM	0.0569 mL	0.2846 mL	0.5692 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Banah, A., Musale, V., Hennayake, C., Murdoch, C., & Kang, L. (2022). Pharmacological inhibition of Integrin a5b1 improves insulin sensitivity in H9C2 cells and cardiac performance in obese mice. Diabetologia, 65(Suppl 1), Article 201.

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