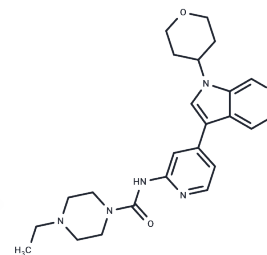


GNF2133

Chemical Properties

CAS No. :	2561414-56-8
Formula:	C ₂₄ H ₃₀ N ₆ O ₂
Molecular Weight:	434.53
Storage:	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	GNF2133 is an effective and selective inhibitor of DYRK1A with IC ₅₀ s of 6.2 nM. GNF2133 can be used in studies about type 1 diabetes.
Targets(IC ₅₀)	DYRK
In vitro	GNF2133 has an IC ₅₀ of >50 μM for GSK3β. GNF2133 significantly improves glucose disposal capacity and increases insulin secretion[1].
In vivo	In Diphtheria toxin A (RIP-DTA) mice, GNF2133 (3, 10, 30 mg/kg) significantly improves glucose disposal capacity and increased insulin secretion. In CD-1 mice, GNF2133 (30 mg/kg; p.o.) shows moderate plasma exposure and good oral absorption with oral bioavailability of 22.3%[1]. In Wistar Han rat, GNF2133 (30 mg/kg; p.o.) increases in cell proliferation marker Ki67 and insulin and reduces cyclin D1 levels and overall cell density[1].

Solubility Information

Solubility	DMSO: 4.5 mg/mL (10.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3013 mL	11.5067 mL	23.0134 mL
5 mM	0.4603 mL	2.3013 mL	4.6027 mL
10 mM	0.2301 mL	1.1507 mL	2.3013 mL
50 mM	0.046 mL	0.2301 mL	0.4603 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

Liu YA, et al. Selective DYRK1A Inhibitor for the Treatment of Type 1 Diabetes: Discovery of 6-Azaindole Derivative GNF2133. J Med Chem. 2020 Mar 26;63(6):2958-2973.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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