
GNF7156

产品编号: D50950

CAS: 2041071-54-7

分子式: C₂₂H₂₂N₆O₃

纯度: ≥98%

InChi: InChi=1S/C₂₂H₂₂N₆O₃/c23-20-19(26-16(13-25-20)14-4-2-1-3-5-14)21(29)27-17-12-24-9-6-18(17)28-10-7-15(8-11-28)22(30)31/h1-6,9,12-13,15H,7-8,10-11H₂, (H₂,23,25)(H,27,29)(H,30,31)

InChi Key: HZCOFZVJMJKIB-UHFFFAOYSA-N

Smiles: NC1=NC=C(N=C1C(=O)NC1C=NC=CC=1N1CCC(CC1)C(O)=O)C1C=CC=CC=1

外观: 固体粉末

溶解性: DMSO up to 100 mM

保存条件: Store in dry, dark place for one year.

产品介绍: GNF7156 is a highly potent and selective small molecule that promotes pancreatic β cell proliferation in rodent (EC₅₀ ~2.2 μ M) and human primary islets (EC₅₀ ~0.76 μ M). It acts most likely as a result of combined inhibition of DYRK1A and GSK3B. GNF7156-treated human islets retain functionality in vitro and after transplantation into diabetic mice. Oral dosing of GNF7156 in diabetic mice induces β -cell proliferation, increases β -cell mass and insulin content, and improves glycaemic control. Biochemical, genetic and cell biology data point to Dyrk1a as the key molecular target. GNF7156 is a good chemical tool to support the feasibility of treating diabetes with an oral therapy to restore β -cell mass, and highlights a tractable pathway for future drug discovery efforts.