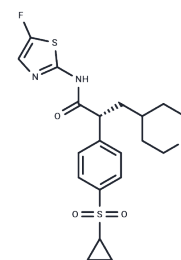


PSN-GK1

Chemical Properties

CAS No. :	745051-61-0
Formula:	C ₂₀ H ₂₃ FN ₂ O ₄ S ₂
Molecular Weight:	438.54
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	PSN-GK1 is a potent activator of glucokinase (EC ₅₀ : 0.13 μM).
Targets(IC ₅₀)	Others
In vivo	PSN-GK1 exhibits an excellent pharmacokinetic profile, with high oral bioavailability, in the rat. PSN-GK1 can markedly reduce blood glucose which accompanied by a trend toward increased pancreatic insulin release. PSN-GK1 engenders potent antihyperglycemic effects in diabetic rodents without causing hypoglycemia [1]. At 5 mM glucose, PSN-GK1 activates glucokinase (4.3-fold, EC ₅₀ : 130 nM), increases MIN6 insulin secretion (26-fold, EC ₅₀ : 267 nM) and 2-DG hepatocytic uptake (3-fold, EC ₅₀ : 1 μM). In C57Bl/6 mice, PSN-GK1 reduces blood glucose at 1 and 10 mg/kg (by mouth), but insulin is increased significantly at only the higher dose. In hyperinsulinaemic 10-mM glucose clamps, PSN-GK1 increases 2-DG incorporation into liver glycogen sixfold [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2803 mL	11.4015 mL	22.8029 mL
5 mM	0.4561 mL	2.2803 mL	4.5606 mL
10 mM	0.228 mL	1.1401 mL	2.2803 mL
50 mM	0.0456 mL	0.228 mL	0.4561 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

Bertram LS, et al. SAR, pharmacokinetics, safety, and efficacy of glucokinase activating 2-(4-sulfonylphenyl)-N-thiazol-2-ylacetamides: discovery of PSN-GK1. J Med Chem. 2008 Jul 24;51(14):4340-5.

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