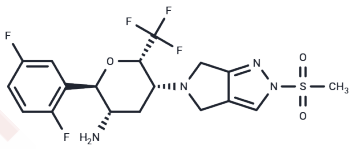
Data Sheet (Cat.No.T62985)

TargetMol

Cofrogliptin

Chemical Properties



CAS No. : 1844874-26-5

Formula: C18H19F5N4O3S

Molecular Weight: 466.43

Storage: Store at low temperature,Keep away from moisture
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	Cofrogliptin (HSK7653) is an orally available dipeptidyl peptidase-4 (DPP-4) inhibitor with hypoglycemic effects, which can be used to study type 2 diabetes (T2D).
Targets(IC50)	Proteasome,DPP-4
In vitro	Evaluate the DPP-4 inhibitory activities of Cofrogliptin, Cofrogliptin exhibited a much better in vitro activity, which significantly enhanced the potency IC50 = 4.2 nM. [1]
In vivo	In vehicle group, mice were intragastrically given 1% hypromellose at a volume of 20 mL/kg. In treatment groups, mice were intragastrically administrated either omarigliptin at 30 mg/kg or varying doses of Cofrogliptin. Cofrogliptin inhibitory activity on plasma DPP-4 was assayed ex vivo in ob/ob mice. After a single dose, Cofrogliptin exhibited a much stronger inhibition capability of plasma DPP-4 than omarigliptin in a dose dependent manner. Monkeys were intragastrically administrated either vehicle or Cofrogliptin (10 mg/kg) at a volume of 5 mL/kg. The ex vivo plasma DPP-4 inhibition was also assayed for Cofrogliptin in rhesus monkeys. After a single dose of 10 mg/kg, Cofrogliptin possessed the capability of plasma DPP-4 inhibition over 80% for at least 12 days. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (171.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1439 mL	10.7197 mL	21.4394 mL
5 mM	0.4288 mL	2.1439 mL	4.2879 mL
10 mM	0.2144 mL	1.072 mL	2.1439 mL
50 mM	0.0429 mL	0.2144 mL	0.4288 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

Zhang C, et al. Design, Synthesis, and Evaluation of a Series of Novel Super Long-Acting DPP-4 Inhibitors for the Treatment of Type 2 Diabetes. J Med Chem. 2020 Jul 9;63(13):7108-7126.