Data Sheet (Cat.No.T2401)

TargetMol

Alogliptin Benzoate

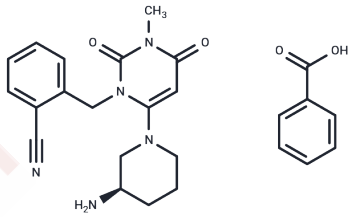
Chemical Properties

CAS No. : 850649-62-6

Formula: C25H27N5O4

Molecular Weight: 461.51

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	Alogliptin Benzoate (SYR 322)(SYR 322), an effective and specific DPP-4 inhibitor (IC50<10 nM), exhibits greater than 10, 000-fold selectivity over DPP-8/9. Alogliptin may inhibit inflammatory responses by preventing the toll-like receptor 4 (TLR-4)-mediated formation of proinflammatory cytokines.
Targets(IC50)	Ferroptosis,Proteasome,DPP-4
In vitro	Alogliptin(SYR-322) is a potent inhibitor of DPP-4 and exhibits greater than 10,000 fold selectivity over the closely related serine proteases DPP-8 and DPP-9. Alogliptin is not an inhibitor of CYP-450 enzymes and does not block the hERG channel at concentrations up to 30 μM. [1]
In vivo	Alogliptin(SYR-322) produces dose-dependent improvements in glucose tolerance and increases plasma insulin levels in female Wistar fatty rats. [1] Acute administration of alogliptin results in a significant decrease in plasma DPP-4 activity, and increases plasma active GLP-1. Alogliptin improves glucose tolerance at a dose of 0.3 mg/kg and higher, with a dose-dependent increase in plasma IRI, suggesting that improved glucose tolerance results from the ability of alogliptin to enhance insulin secretion. [2]

Solubility Information

Solubility	DMSO: 55 mg/mL (119.17 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: 2 mg/mL (4.33 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.17 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1668 mL	10.834 mL	21.668 mL
5 mM	0.4334 mL	2.1668 mL	4.3336 mL
10 mM	0.2167 mL	1.0834 mL	2.1668 mL
50 mM	0.0433 mL	0.2167 mL	0.4334 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

Feng J, et al. J Med Chem, 2007, 50(10), 2297-2300.
Asakawa T, et al. Life Sci, 2009, 85(3-4), 122-126.