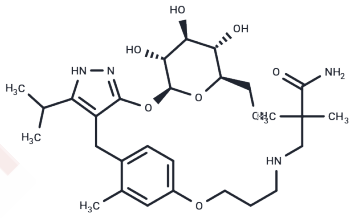
Data Sheet (Cat.No.T16083)

TargetMol

Mizagliflozin

Chemical Properties



CAS No. : 666843-10-3

Formula: C28H44N4O8

Molecular Weight: 564.67

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	Mizagliflozin is an orally active, selective SGLT1 inhibitor with a Ki value of 27 nM for human SGLT1. Mizagliflozin is 303 times more selective for SGLT1 than for SGLT2. Mizagliflozin is an anti-diabetic drug that can improve postprandial blood sugar fluctuations and may have the potential to improve chronic constipation.
Targets(IC50)	SGLT
In vivo	**METHODS**: Mizagliflozin (GSK-1614235 free base) (0.3 mg/kg, intravenous administration) and oral administration (3 mg/kg, oral administration) were administered to rats to study its pharmacokinetics and metabolite profile. **RESULTS** Mizagliflozin had different half-lives in rats (0.23 and 1.14 hours, respectively) depending on the administration route; the absolute bioavailability was only 0.02%; after oral administration, Mizagliflozin was mainly metabolized to its aglycone KP232 in the intestine. [2]

Solubility Information

Solubility	Methanol: 250 mg/mL (442.74 mM),Sonication is recommended. DMSO: 150 mg/mL (265.64 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: 4 mg/mL (7.08 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	1.7709 mL	8.8547 mL	17.7095 mL
5 mM	0.3542 mL	1.7709 mL	3.5419 mL
10 mM	0.1771 mL	0.8855 mL	1.7709 mL
50 mM	0.0354 mL	0.1771 mL	0.3542 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

Inoue T, et al. Mizagliflozin, a novel selective SGLT1 inhibitor, exhibits potential in the amelioration of chronic constipation. Eur J Pharmacol. 2017 Jul 5;806:25-31.
Palmer R K, Nechiporenko A B, Ilies M A, et al.Sodium-dependent glucose co-transport proteins (SGLTs) are not involved in human glucose taste detection.PloS one.2024, 19(11): e0313128.
Ohno H,et al. Absorption, disposition, metabolism and excretion of [14C]mizagliflozin, a novel selective SGLT1 inhibitor, in rats. Xenobiotica. 2019 Apr;49(4):463-473.