

Sotagliflozin

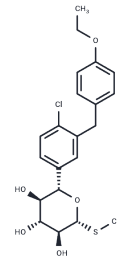
Chemical Properties

CAS No. : 1018899-04-1

Formula: C₂₁H₂₅ClO₅

Molecular Weight: 424.94

Storage: Keep away from moisture, Keep away from direct sunlight
 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	Sotagliflozin (LX-4211, LP-802034) is an oral dual inhibitor of sodium-glucose cotransporter 1/2 (SGLT1/SGLT2) (SGLT2, IC ₅₀ ≈ 1.8 nM; SGLT1, IC ₅₀ ≈ 36 nM) used as an antidiabetic agent. Sotagliflozin is used in research on cardiovascular disease and diabetes.
Targets(IC50)	SGLT
In vitro	LX4211 inhibits [¹⁴ C]AMG uptake with IC ₅₀ of 62.0 nM for mouse SGLT1 and 0.6 nM for mouse SGLT2, respectively. [2]
In vivo	<p>Methods: After 7 days of acclimatization, mice were randomly assigned to groups. Oral administration of sotagliflozin (30 mg/kg/day) began 7 days prior to surgery using a vehicle solution of 10% DMSO + 90% corn oil at a volume of 10 mL/kg/day. Myocardial infarction (MI) or sham surgery was performed on day 8. Following a 3-day postoperative recovery period, drug administration continued for 25 days, totaling approximately 5 weeks of treatment.</p> <p>Results: Sotagliflozin treatment significantly improved MI-induced cardiac dysfunction, with recovery of EF, FS, and other parameters, and markedly reduced myocardial fibrosis area and infarct size. [1]</p>

Solubility Information

Solubility	DMSO: 262.5 mg/mL (617.73 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 14 mg/mL (32.95 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3533 mL	11.7664 mL	23.5327 mL
5 mM	0.4707 mL	2.3533 mL	4.7065 mL
10 mM	0.2353 mL	1.1766 mL	2.3533 mL
50 mM	0.0471 mL	0.2353 mL	0.4707 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

Liao L, et al. Sotagliflozin attenuates cardiac dysfunction and depression-like behaviors in mice with myocardial infarction through the gut-heart-brain axis. *Neurobiol Dis.* 2024 Sep;199:106598.

Ding L, Chen X, Zhang W, et al. Canagliflozin primes antitumor immunity by triggering PD-L1 degradation in endocytic recycling. *The Journal of Clinical Investigation.* 2023, 133(1).

Powell DR, et al. *J Pharmacol Exp Ther.* 2013, 345(2), 250-259.

Powell DR, et al. *Diabetes Metab Syndr Obes.* 2015, 8, 121-187.

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