Sotagliflozin

Cat. No.: HY-15516

CAS No.: 1018899-04-1

Molecular Formula: $C_{21}H_{25}ClO_5S$

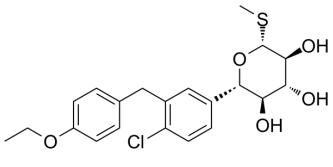
Molecular Weight: 425

Target: SGLT

Pathway: Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (235.29 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3529 mL	11.7647 mL	23.5294 mL
	5 mM	0.4706 mL	2.3529 mL	4.7059 mL
	10 mM	0.2353 mL	1.1765 mL	2.3529 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sotagliflozin (LX-4211) is a potent dual SGLT2/1 inhibitor. Antidiabetic agents.

IC_{50} & Target

SGLT1/2

In Vitro

LX4211 enhanced urinary glucose excretion by inhibiting SGLT2-mediated renal glucose reabsorption; markedly and significantly improved multiple measures of glycemic control, including fasting plasma glucose, oral glucose tolerance, and HbA(1c); and significantly lowered serum triglycerides. LX4211 also mediated trends for lower weight, lower blood pressure, and higher glucagon-like peptide-1 levels. In a follow-up single-dose study in 12 patients with T2DM, LX4211 (300 mg) significantly increased glucagon-like peptide-1 and peptide YY levels relative to pretreatment values, probably by delaying

SGLT1-mediated intestinal glucose absorption [1]. LX4211-treated mice and SGLT1-/- mice also had increased GLP-1 AUC values, decreased glucose-dependent insulinotropic polypeptide (GIP) AUC values, and decreased blood glucose excursions during the 6 hours after a challenge with oral glucose alone [2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nat Cell Biol. 2021 Jul;23(7):733-744.
- Curr Biol. 2022 Feb 15;S0960-9822(22)00137-3.
- Mol Metab. 2019 Jan;19:1-12.
- Oncogene. 2021 Jun 21.
- iScience. 2023 Jun 27.

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REFERENCES

[1]. Zambrowicz B, et al. LX4211, a dual SGLT1/SGLT2 inhibitor, improved glycemic control in patients with type 2 diabetes in a randomized, placebo-controlled trial. Clin Pharmacol Ther. 2012 Aug;92(2):158-69.

[2]. Powell DR, et al. LX4211 increases serum glucagon-like peptide 1 and peptide YY levels by reducing sodium/glucose cotransporter 1 (SGLT1)-mediated absorption of intestinal glucose. J Pharmacol Exp Ther. 2013 May;345(2):250-9.

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