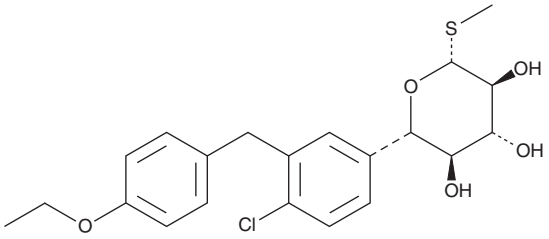
PRODUCT INFORMATION

Sotagliflozin

Item No. 19141

CAS Registry No.:	1018899-04-1
Formal Name:	methyl 5S-C-[4-chloro-3-[(4-ethoxyphenyl)methyl]phenyl]-1-thio-β-L-xylopyranoside
Synonyms:	LP 802034, LX4211
MF:	$C_{21}H_{25}ClO_5S$
FW:	424.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 275 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Sotagliflozin is supplied as a crystalline solid. A stock solution may be made by dissolving the sotagliflozin in the solvent of choice, which should be purged with an inert gas. Sotagliflozin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of sotagliflozin in these solvents is approximately 30 mg/ml.

Sotagliflozin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, sotagliflozin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Sotagliflozin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Sotagliflozin is an inhibitor of sodium-glucose cotransporters (SGLTs; IC_{50}s = 36 and 1.8 nM for human SGLT1 and SGLT2, respectively).[1] It increases plasma glucagon-like peptide 1 (GLP-1) and peptide YY (PYY) levels, as well as glucose levels in the small intestine, cecum, and colon, in mice when administered at a dose of 60 mg/kg.[2] Sotagliflozin (2 and 30 mg/kg) decreases blood glucose levels in a mouse model of diabetes induced by cyclophosphamide (Item No. 13849).[3] Formulations containing sotagliflozin have been used in the treatment of type 1 diabetes.

References

1. Zambrowicz, B., Freiman, J., Brown, P.M., *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.* **92(2)**, 158-169 (2012).
2. Powell, D.R., Smith, M., Greer, J., *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.* **345(2)**, 250-259 (2013).
3. Powell, D.R., Doree, D., Jeter-Jones, S., *et al.* Sotagliflozin improves glycemic control in nonobese diabetes-prone mice with type 1 diabetes. *Diabetes Metab. Syndr. Obes.* **8**, 121-127 (2015).

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