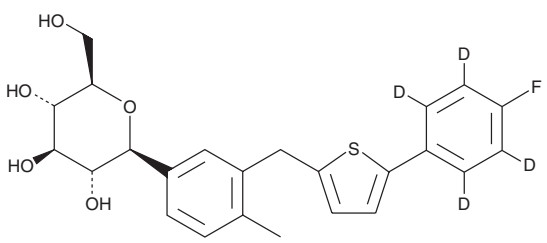
PRODUCT INFORMATION

Canagliflozin-d_4

Item No. 25223

CAS Registry No.: 1997338-61-0
Formal Name: (1S)-1,5-anhydro-1-C-[3-[[5-(4-fluorophenyl-2,3,5,6-d_4)-2-thienyl]methyl]-4-methylphenyl]-D-glucitol
MF: $C_{24}H_{21}D_4FO_5S$
FW: 448.5
Chemical Purity: ≥98% (Canagliflozin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
Supplied as: A 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

Canagliflozin-d_4 is intended for use as an internal standard for the quantification of canagliflozin (Item No. 11575) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Canagliflozin-d_4 is supplied as a solid. A stock solution may be made by dissolving the canagliflozin-d_4 in the solvent of choice, which should be purged with an inert gas. Canagliflozin-d_4 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of canagliflozin-d_4 in these solvents is approximately 30 mg/ml.

Description

Canagliflozin is an inhibitor of sodium-glucose cotransporter 2 (SGLT2; IC_{50} = 2.2 nM) that less potently blocks SGLT1 (IC_{50} = 910 nM).[1] Canagliflozin is orally bioavailable and lowers plasma glucose by lowering the renal threshold for glucose and increasing urinary glucose excretion in animals.[1,2] Formulations containing SGLT2 inhibitors, including canagliflozin, have been used to treat type 2 diabetes mellitus.[3]

References

1. Nomura, S., Sakamaki, S., Hongu, M., *et al.* Discovery of canagliflozin, a novel C-glucoside with thiophene ring, as sodium-dependent glucose cotransporter 2 inhibitor for the treatment of type 2 diabetes mellitus. *J. Med. Chem.* **53(17)**, 6355-6360 (2010).
2. Sha, S., Devineni, D., Ghosh, A., *et al.* Canagliflozin, a novel inhibitor of sodium glucose co-transporter 2, dose dependently reduces calculated renal threshold for glucose excretion and increases urinary glucose excretion in healthy subjects. *Diabetes Obes. Metab.* **13(7)**, 669-672 (2011).
3. Reed, J.W. Impact of sodium-glucose cotransporter 2 inhibitors on blood pressure. *Vasc. Health Risk Manag.* **12**, 393-405 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM