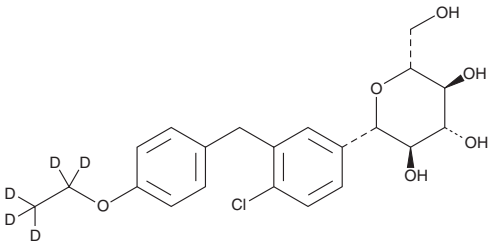
PRODUCT INFORMATION

Dapagliflozin-d_5

Item No. 22611

CAS Registry No.: 1204219-80-6
Formal Name: (1S)-1,5-anhydro-1-C-[4-chloro-3-[[4-(ethoxy-1,1,2,2,2-d_5)phenyl]methyl]phenyl]-D-glucitol
MF: $C_{21}H_{20}ClD_5O_6$
FW: 413.9
Chemical Purity: ≥95% (Dapagliflozin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_5); ≤1% d_0
Supplied as: A solid
Storage: 4°C
Stability: ≥2 years
Special Conditions: Hygroscopic



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

Laboratory Procedures

Dapagliflozin-d_5 is intended for use as an internal standard for the quantification of dapagliflozin (Item No. 11574) 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).

Dapagliflozin-d_5 is supplied as a solid. A stock solution may be made by dissolving the dapagliflozin-d_5 in the solvent of choice. Dapagliflozin-d_5 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of dapagliflozin in these solvents is approximately 30 mg/ml.

Description

Dapagliflozin-d_5 is intended for use as an internal standard for the quantification of dapagliflozin (Item No. 11574) by GC- or LC-MS. Dapagliflozin is an inhibitor of sodium-glucose transporter 2 (SGLT2; IC_{50}s = 1.12 and 3 nM for the human and rat enzymes, respectively).[1] It is selective for SGLT2 over SGLT1 (IC_{50}s = 1,391 and 620 nM for the human and rat enzymes, respectively) and human adipocyte glucose transporter (GLUT) activity at 20 µM. Dapagliflozin (0.1 and 1 mg/kg) increases urinary glucose levels in normal and Zucker diabetic rats. It decreases fasting and fed plasma glucose levels in Zucker diabetic rats when administered at doses of 0.01, 0.1, and 1 mg/kg.

Reference

1. Han, S., Hagan, D.L., Taylor, J.R., *et al.* Dapagliflozin, a selective SGLT2 inhibitor, improves glucose homeostasis in normal and diabetic rats. *Diabetes* **57(6)**, 1723-1729 (2008).

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