

PRODUCT INFORMATION



Dapagliflozin-d₅

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-d₅)phenyl]methyl]phenyl]-D-glucitol

MF: C₂₁H₂₀ClD₅O₆

FW: 413.9

Chemical Purity: ≥95% (Dapagliflozin)

Deuterium

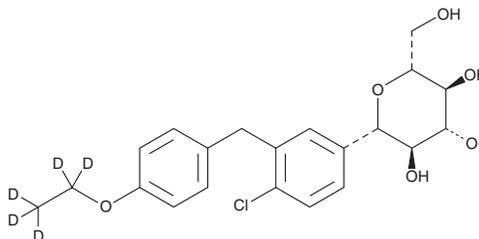
Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀

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-d₅ 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-d₅ is supplied as a solid. A stock solution may be made by dissolving the dapagliflozin-d₅ in the solvent of choice. Dapagliflozin-d₅ 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-d₅ 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; IC₅₀s = 1.12 and 3 nM for the human and rat enzymes, respectively).¹ It is selective for SGLT2 over SGLT1 (IC₅₀s = 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).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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