
Product Data Sheet

Product Name: Canagliflozin D4

Cat. No.: GC39178

Chemical Properties

Cas. No. 1997338-61-0

SMILES FC1=C([2H])C([2H])=C(C2=CC=C(CC3=C(C=CC([C@@H]4O[C@@H]([C@H]([C@@H]([C@H]4O)O)O)CO)=C3)C)S2)C([2H])=C1[2H]

Formula C₂₄H₂₁D₄FO₅S

M.Wt 448.54

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 30 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

Canagliflozin-d₄ is intended for use as an internal standard for the quantification of canagliflozin by GC- or LC-MS. Canagliflozin is an inhibitor of sodium-glucose cotransporter 2 (SGLT2; IC₅₀ = 2.2 nM) that less potently blocks SGLT1 (IC₅₀ = 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

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 cotransporter 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

Caution: Product has not been fully validated for medical applications. For research use only.

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inhibitors on blood pressureVasc. Health Risk Manag.12393-405(2016)

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