

Product Data Sheet

Product Name: Salicylic acid-13C6

Cat. No.: GC74187

Chemical Properties

Cas. No. 1189678-81-6

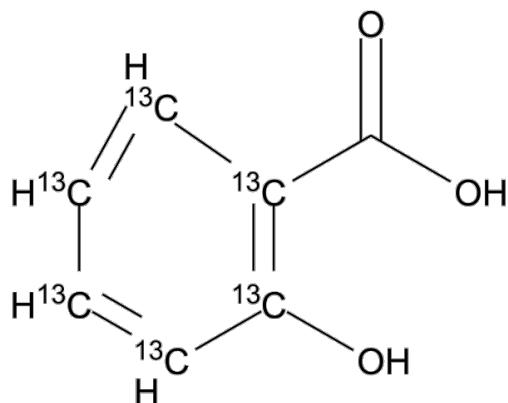
Formula $C_{13}C_6H_6O_3$ M.Wt 144.08

Solubility DMSO : ≥ 50 mg/mL (347.03 mM); Storage $-20^{\circ}C$
H₂O : 1 mg/mL (6.94 mM; Need
ultrasonic); H₂O : 1 mg/mL (6.94
mM; Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Salicylic acid-13C6 is the 13C-labeled Salicylic acid . Salicylic acid is a precursor to and a metabolite of Aspirin , can inhibit cyclo-oxygenase-2 (COX-2) activity[1][2].

Stable heavy isotopes of drogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has

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gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Mitchell JA, et al. Sodium salicylate inhibits cyclo-oxygenase-2 activity independently of transcription factor (nuclear factor kappaB) activation: role of arachidonic acid. *Mol Pharmacol*. 1997 Jun;51(6):907-12.; Nixon M, et al. Salicylate downregulates 11

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