Salicylic acid-$^{13}C_6$

Cat. No.: HY-B0167S1

CAS No.: 1189678-81-6

Molecular Formula: $C^{13}C_6H_6O_3$

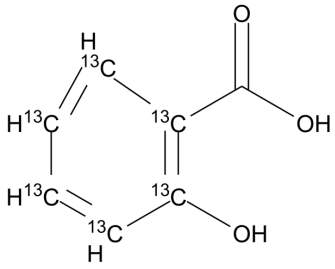
Molecular Weight: 144.08

Target: Autophagy; Apoptosis; COX; Mitophagy; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Autophagy; Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (347.03 mM)

H2O : 1 mg/mL (6.94 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	6.9406 mL	34.7029 mL	69.4059 mL
5 mM	1.3881 mL	6.9406 mL	13.8812 mL
10 mM	0.6941 mL	3.4703 mL	6.9406 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Salicylic acid-$^{13}C_6$ is the ^{13}C-labeled Salicylic acid (HY-B0167). Salicylic acid is a precursor to and a metabolite of Aspirin (HY-14654), can inhibit cyclo-oxygenase-2 (COX-2) activity[1][2].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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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