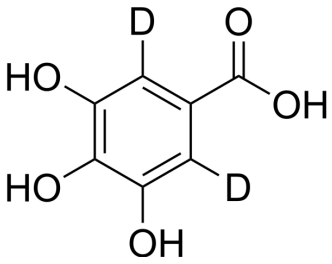
Gallic acid-d_2

Cat. No.:	HY-N0523S
CAS No.:	294660-92-7
Molecular Formula:	$C_7H_4D_2O_5$
Molecular Weight:	172.13
Target:	Apoptosis; COX; Ferroptosis; Endogenous Metabolite; Reactive Oxygen Species
Pathway:	Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Gallic acid-d_2 is the deuterium labeled Gallic acid[1]. Gallic acid (3,4,5-Trihydroxybenzoic acid) is a natural polyhydroxyphenolic compound and an free radical scavenger to inhibit cyclooxygenase-2 (COX-2)[2]. Gallic acid has various activities, such as antimicrobial, antioxidant, antimicrobial, anti-inflammatory, and anticance activities[3].
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]. Amaravani M, et al. COX-2 structural analysis and docking studies with gallic acid structural analogues. Springerplus. 2012 Dec;1(1):58.

[3]. Bak EJ, et al. Gallic acid improves glucose tolerance and triglyceride concentration in diet-induced obesity mice. Scand J Clin Lab Invest. 2013 Dec73(8):607-14.

[4]. Cheng Y, et al. Plant Natural Products Calycosin and Gallic Acid Synergistically Attenuate Neutrophil Infiltration and Subsequent Injury in Isoproterenol-Induced Myocardial Infarction: A Possible Role for Leukotriene B4 12-Hydroxydehydrogenase? Oxid Med Cell Longev. 20152015:434052.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA