Product Data Sheet

Catechin-¹³C₃

MedChemExpress

Cat. No.: Molecular Formula: Molecular Weight: Target: Pathway: Storage:	HY-N0898S C ₁₂ ¹³ C ₃ H ₁₀ O ₆ 289.21 Apoptosis; COX; Influenza Virus; Endogenous Metabolite Apoptosis; Immunology/Inflammation; Anti-infection; Metabolic Enzyme/Protease Please store the product under the recommended conditions in the Certificate of Analysis.	HO HO HO HO HO HO HO HO HO HO HO HO HO H
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BIOLOGICAL ACTIVITY		
Description	$Catechin - {}^{13}C_3 is the {}^{13}C-labeled Catechin. Catechin ((+)-Catechin) inhibits cyclooxygenase - 1 (COX-1) with an IC50 of 1.4 \mu M.$	
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;53(2):211-216.

[2]. Waffo-Téguo P, et al. Potential cancer-chemopreventive activities of wine stilbenoids and flavans extracted from grape (Vitis vinifera) cell cultures. Nutr Cancer. 2001;40(2):173-9.

[3]. Alshatwi AA. Catechin hydrate suppresses MCF-7 proliferation through TP53/Caspase-mediated apoptosis. J Exp Clin Cancer Res. 2010 Dec 17;29:167.

[4]. Cheruku SP, et al. Catechin ameliorates doxorubicin-induced neuronal cytotoxicity in in vitro and episodic memory deficit in in vivo in Wistar rats. Cytotechnology. 2018 Feb;70(1):245-259.

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

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