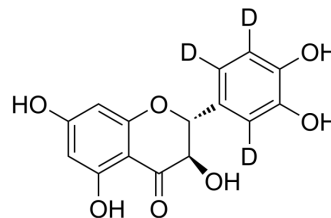


Taxifolin-d₃

Cat. No.:	HY-N0136S
Molecular Formula:	C ₁₅ H ₉ D ₃ O ₇
Molecular Weight:	307.27
Target:	Autophagy; Tyrosinase; Isotope-Labeled Compounds
Pathway:	Autophagy; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Taxifolin-d₃ is deuterium labeled Taxifolin. Taxifolin ((+)-Dihydroquercetin) exhibits important anti-tyrosinase activity. Taxifolin exhibits significant inhibitory activity against collagenase with an IC₅₀ value of 193.3 μM[1]. Taxifolin is an important natural compound with antifibrotic activity. Taxifolin is a free radical scavenger with antioxidant capacity[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;53(2):211-216.
- [2]. Angelis A, et al. Bio-Guided Isolation of Methanol-Soluble Metabolites of Common Spruce (*Picea abies*) Bark by-Products and Investigation of Their Dermo-Cosmetic Properties. *Molecules.* 2016 Nov 21;21(11):1586.
- [3]. Lei Ren, et al. Dissecting Efficacy and Metabolic Characteristic Mechanism of Taxifolin on Renal Fibrosis by Multivariate Approach and Ultra-Performance Liquid Chromatography Coupled With Mass Spectrometry-Based Metabolomics Strategy. *Front Pharmacol.* 2021 Jan 14;11:608511.
- [4]. Yang P, et al. Detection of 191 Taxifolin Metabolites and Their Distribution in Rats Using HPLC-ESI-IT-TOF-MS(n). *Molecules.* 2016 Sep 13;21(9). pii: E1209.

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

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