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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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(E)-Ferulic acid-d_3

Cat. No.: HY-N0060BS

CAS No.: 860605-59-0

Molecular Formula: $C_{10}H_7D_3O_4$

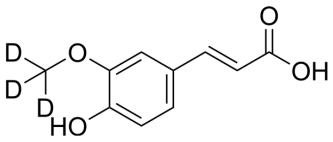
Molecular Weight: 197.2

Target: β-catenin; Bcl-2 Family; Ferroptosis; Endogenous Metabolite

Pathway: Stem Cell/Wnt; Apoptosis; Metabolic Enzyme/Protease

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 (253.55 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	5.0710 mL	25.3550 mL	50.7099 mL
	5 mM	1.0142 mL	5.0710 mL	10.1420 mL
	10 mM	0.5071 mL	2.5355 mL	5.0710 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 1.25 mg/mL (6.34 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (6.34 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (6.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(E)-Ferulic acid-d_3 is the deuterium labeled (E)-Ferulic acid. (E)-Ferulic acid is a isomer of Ferulic acid which is an aromatic compound, abundant in plant cell walls. (E)-Ferulic acid causes the phosphorylation of β-catenin, resulting in proteasomal degradation of β-catenin and increases the expression of pro-apoptotic factor Bax and decreases the expression of pro-survival factor survivin. (E)-Ferulic acid shows a potent ability to remove reactive oxygen species (ROS) and inhibits lipid peroxidation. (E)-Ferulic acid exerts both anti-proliferation and anti-migration effects in the human lung cancer cell line H1299[1].

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]. Fong Y, et al. Inhibitory effect of trans-ferulic acid on proliferation and migration of human lung cancer cells accompanied with increased endogenous reactive oxygen species and β-catenin instability. Chin Med. 2016 Oct 1;11:45.

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

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