Physcion-d_3

Cat. No.: HY-N0108S

CAS No.: 1215751-27-1

Molecular Formula: $C_{16}H_9D_3O_5$

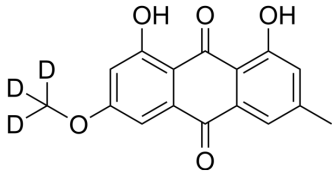
Molecular Weight: 287.28

Target: Bacterial; Isotope-Labeled Compounds

Pathway: Anti-infection; 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 : 6.67 mg/mL (23.22 mM; ultrasonic and warming and heat to 80°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4809 mL	17.4046 mL	34.8092 mL
	5 mM	0.6962 mL	3.4809 mL	6.9618 mL
	10 mM	0.3481 mL	1.7405 mL	3.4809 mL

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

BIOLOGICAL ACTIVITY

Description

Physcion-d_3 (Parietin-d_3) is the deuterium labeled Physcion (HY-N0108). Physcion acts as an inhibitor of 6-phosphogluconate dehydrogenase, with an IC_{50} and a K_d of 38.5 μM and 26.0 μM, respectively. Physcion exhibits laxative, hepatoprotective, anti-inflammatory, anti-microbial, anti-proliferative and anti-tumor effects[1][2][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;53(2):211-216.

[2]. Lin R, et al. 6-Phosphogluconate dehydrogenase links oxidative PPP, lipogenesis and tumour growth by inhibiting LKB1-AMPK signalling. Nat Cell Biol. 2015

Nov;17(11):1484-96.

[3]. Pang MJ, et al. Physcion, a naturally occurring anthraquinone derivative, induces apoptosis and autophagy in human nasopharyngeal carcinoma. Acta Pharmacol Sin. 2016 Dec;37(12):1623-1640.

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