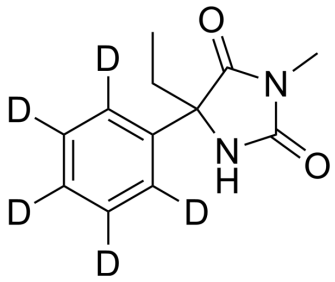
Mephenytoin-d_5

Cat. No.:	HY-B1184S1
CAS No.:	1185032-66-9
Molecular Formula:	$C_{12}H_9D_5N_2O_2$
Molecular Weight:	223.28
Target:	Cytochrome P450
Pathway:	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 : 100 mg/mL (447.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.4787 mL	22.3934 mL	44.7868 mL
	5 mM	0.8957 mL	4.4787 mL	8.9574 mL
	10 mM	0.4479 mL	2.2393 mL	4.4787 mL

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

BIOLOGICAL ACTIVITY

Description

Mephenytoin-d_5 is the deuterium labeled Mephenytoin. Mephenytoin, an anticonvulsant, is the CYP2C19 and CYP2B6 substrate[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):211-223.

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

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