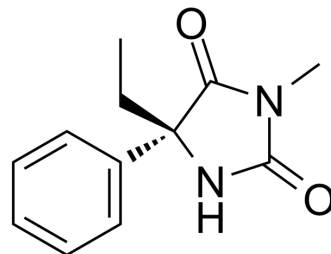


(R)-Mephenytoin

Cat. No.:	HY-126043	
CAS No.:	71140-51-7	
Molecular Formula:	C ₁₂ H ₁₄ N ₂ O ₂	
Molecular Weight:	218.25	
Target:	Cytochrome P450	
Pathway:	Metabolic Enzyme/Protease	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 220 mg/mL (1008.02 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.5819 mL	22.9095 mL	45.8190 mL
		5 mM	0.9164 mL	4.5819 mL	9.1638 mL
		10 mM	0.4582 mL	2.2910 mL	4.5819 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 5.5 mg/mL (25.20 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5.5 mg/mL (25.20 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	(R)-Mephenytoin ((-)-Mephenytoin), the R-enantiomer of Mephenytoin. Mephenytoin is an Anticonvulsant agent ^{[1][2]} .
In Vitro	(R)-Mephenytoin can be N-demethylated by the cytochrome P450 (CYP) isoform CYP2C9 to form the metabolite 5-phenyl-5-ethylhydantoin (nirvanol) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Meier UT, et, al. Assay of mephenytoin metabolism in human liver microsomes by high-performance liquid chromatography. Anal Biochem. 1985 Dec;151(2):286-91.

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

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