Data Sheet (Cat.No.T0939)



Phenytoin

Chemical Properties

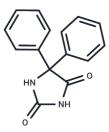
CAS No.: 57-41-0

Formula: C15H12N2O2

Molecular Weight: 252.27

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Phenytoin (5,5-Diphenylhydantoin) is a hydantoin derivative and a non-sedative antiepileptic agent with anticonvulsant activity. It potentially acts by promoting sodium efflux from neurons in the motor cortex, reducing post-tetanic potentiation at synapses. This prevents cortical seizure foci from spreading to adjacent areas and stabilizes the threshold against hyperexcitability. Additionally, it appears to reduce muscle spindle sensitivity to stretch, causing muscle relaxation.
Targets(IC50)	Sodium Channel, Virus Protease

Solubility Information

Solubility	Ethanol: 11 mg/mL (43.6 mM),Sonication is recommended.	
	DMSO: 55 mg/mL (218.02 mM), Sonication is recommended.	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

Preparing Stock Solutions

(0)	1mg	5mg	10mg
1 mM	3.964 mL	19.820 mL	39.6401 mL
5 mM	0.7928 mL	3.964 mL	7.928 mL
10 mM	0.3964 mL	1.982 mL	3.964 mL
50 mM	0.0793 mL	0.3964 mL	0.7928 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Owoeye O, et al. J Diet Suppl. 2015 Mar; 12(1):105-17.

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