Product Data Sheet



Primidone-d₅

Cat. No.: HY-B0339S CAS No.: 73738-06-4 Molecular Formula: $C_{12}H_9D_5N_2O_2$ Molecular Weight: 223.28

Target: Sodium Channel

Pathway: Membrane Transporter/Ion Channel

-20°C Storage: Powder 3 years

2 years

-80°C In solvent 6 months

> -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 50 mg/mL (223.93 mM; Need ultrasonic)

 $H20 : \ge 0.67 \text{ mg/mL} (3.00 \text{ mM})$

* "≥" means soluble, but saturation unknown.

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 Primidone- d_5 is the deuterium labeled Primidone. Primidone is a potent anticonvulsant agent of the barbiturate class. Primidone is a neuronal voltage-gated sodium channel (VGSC) blocker and can be used for the study of epilepsy, essential tremor, and Psychiatric disorders[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]. Nevili Nworig, et al. Voltage	e-gateu soulum channels. Curr 	Opin Pharmacol. 2015 Jun;22:1	 Σ1-A	
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