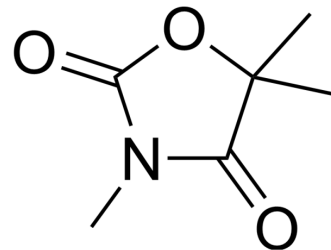


Trimethadione

Cat. No.:	HY-A0092		
CAS No.:	127-48-0		
Molecular Formula:	C ₆ H ₉ NO ₃		
Molecular Weight:	143.14		
Target:	Calcium Channel		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 40 mg/mL (279.45 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	6.9862 mL	34.9308 mL	69.8617 mL
	5 mM	1.3972 mL	6.9862 mL	13.9723 mL
	10 mM	0.6986 mL	3.4931 mL	6.9862 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (17.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (17.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (17.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Trimethadione (3,5,5-Trimethyloxazolidine-2,4-dione) is an oxazolidinedione anticonvulsant agent widely used against absences seizures. Trimethadione also is a T-type calcium channel blocker which has antihyperalgesic effects^{[1][2]}.

IC₅₀ & Target

T-type calcium channel

REFERENCES

- [1]. Pastore V, et, al. Synthesis and anticonvulsant activity of bioisosteres of trimethadione, N-derivative-1,2,3-oxathiazolidine-4-one-2,2-dioxides from α -hydroxyamides. Bioorg Med Chem. 2013 Feb 15;21(4):841-6.
- [2]. Barton ME, et, al. The antihyperalgesic effects of the T-type calcium channel blockers ethosuximide, trimethadione, and mibefradil. Eur J Pharmacol. 2005 Oct 3;521(1-3):79-85.
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Caution: Product has not been fully validated for medical applications. For research use only.

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