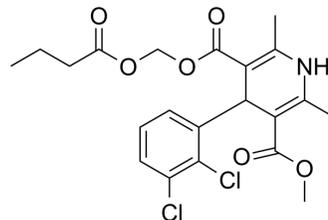


Clevidipine

Cat. No.:	HY-17436
CAS No.:	167221-71-8
Molecular Formula:	C ₂₁ H ₂₃ Cl ₂ NO ₆
Molecular Weight:	456.32
Target:	Calcium Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (109.57 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.1914 mL	10.9572 mL	21.9144 mL
	5 mM	0.4383 mL	2.1914 mL	4.3829 mL
	10 mM	0.2191 mL	1.0957 mL	2.1914 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 (5.48 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.48 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Clevidipine is a short-acting dihydropyridine calcium channel antagonist (IC₅₀= 7.1 nM, V(H) = -40 mV).

REFERENCES

- Yi X, Vivien B, Lynch C 3rd. Clevidipine blockade of L-type Ca²⁺ currents: steady-state and kinetic electrophysiological studies in guinea pig ventricular myocytes.
- Hureau C, Makita T, Szlam F, The vasodilator effects of clevidipine on human internal mammary artery. *Anesth Analg*. 1997 Nov;85(5):1000-4.
- Ericsson H, et al. In vitro hydrolysis rate and protein binding of clevidipine, a new ultrashort-acting calcium antagonist metabolised by esterases, in different animal species and man. *Eur J Pharm Sci*. 1999 Apr;8(1):29-37.

[4]. Ericsson H, et al. Pharmacokinetics of new calcium channel antagonist clevidipine in the rat, rabbit, and dog and pharmacokinetic/pharmacodynamic relationship in anesthetized dogs. Drug Metab Dispos. 1999 May;27(5):558-64.

[5]. Schwieler JH, et al. Circulatory effects and pharmacology of clevidipine, a novel ultra short acting and vascular selective calcium antagonist, in hypertensive humans. J Cardiovasc Pharmacol. 1999 Aug;34(2):268-74.

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

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