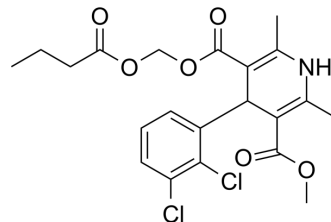


## Clevidipine

<b>Cat. No.:</b>	HY-17436
<b>CAS No.:</b>	167221-71-8
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>23</sub> Cl <sub>2</sub> NO <sub>6</sub>
<b>Molecular Weight:</b>	456.32
<b>Target:</b>	Calcium Channel
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	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 (IC<sub>50</sub>= 7.1 nM, V(H) = -40 mV).

### REFERENCES

- Yi X, Vivien B, Lynch C 3rd. Clevidipine blockade of L-type Ca<sup>2+</sup> 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.

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[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.

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

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