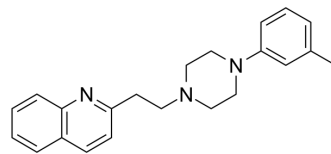


Centhaquin

Cat. No.:	HY-106690		
CAS No.:	57961-90-7		
Molecular Formula:	C ₂₂ H ₂₅ N ₃		
Molecular Weight:	331.45		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 62.5 mg/mL (188.57 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.0170 mL	15.0852 mL	30.1705 mL
		5 mM	0.6034 mL	3.0170 mL	6.0341 mL
10 mM		0.3017 mL	1.5085 mL	3.0170 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 6.25 mg/mL (18.86 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Centhaquine (Centhaquin; PMZ-2010) is a novel agent has the potential for treatment of haemorrhagic shock. Centhaquine (Centhaquin; PMZ-2010) can augment cardiac output, reduce systemic vascular resistance in haemorrhagic models ^{[1][2]} .
In Vivo	<p>Centhaquine (Centhaquin) (intravenous injection, 0.01-1.0 mg/kg; intraduodenal administration 1.0-2.5 mg/kg) lowers the blood pressure and reduced the heart rate of anaesthetized and unanaesthetized (decerebrate) cat in a dose-dependent manner^[1].</p> <p>Centhaquine (Centhaquin) (intravertebral arterial injection; 5-10 µg) or by topical application to the exposed ventral surface of medulla or floor of the fourth ventricle causes hypotension and bradycardia as well as reduced the excitability of the vasomotor loci^[1].</p> <p>Centhaquine (Centhaquin; PMZ-2010) (intravenous administration; 0.015mg/kg) can attenuate the deleterious effects of catecholamines, improving both the macro- and microcirculation during CPR^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

Animal Model:	Landrace/Large White piglets ^[2]
Dosage:	0.015mg/kg
Administration:	Intravenous administration; Adrenaline 0.02mg/kg plus Centhaquin 0.015mg/kg
Result:	Added to adrenaline improved ROSC rates in a swine model of VF cardiac arrest.

REFERENCES

- [1]. Simal RC, et al. Pharmacological studies on 2-(2-(4-(3-methylphenyl)-1-piperazinyl)ethyl) quinoline (centhaquin). I. Hypotensive activity. *Pharmacol Res.* 1990 May-Jun;22(3):319-29.
- [2]. Papalexopoulou K, et al. Centhaquin Effects in a Swine Model of Ventricular Fibrillation: Centhaquin and Cardiac Arrest. *Heart Lung Circ.* 2017 Aug;26(8):856-863.

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

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