

Cesium chloride

Cat. No.:	HY-107754
CAS No.:	7647-17-8
Molecular Formula:	ClCs
Molecular Weight:	168.36
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (593.97 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	5.9397 mL	29.6983 mL	59.3965 mL
	5 mM	1.1879 mL	5.9397 mL	11.8793 mL	
	10 mM	0.5940 mL	2.9698 mL	5.9397 mL	

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

BIOLOGICAL ACTIVITY

Description

Cesium chloride is a blocker of potassium channel. Cesium chloride prevents the decrease of Na⁺ transport produced by Alloxan^{[1][2]}. Cesium chloride has induced cardiac arrhythmias, including torsade de pointes in animal models^[3].

In Vitro

Cesium chloride (CsCl) decreases the increment of membrane potential, the elevation of intracellular calcium and the upregulation of NOS, ET-1 and VEGF expressions, which are induced by Acrolein^[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Cesium Chloride (12 mg/100 g body weight, daily for 30 days; i.p.; male Wistar rats- BOO model) could significantly weaken the effect of XJT (traditional Chinese medicine) on not only the expression of these potassium channels but also the bladder weight, urodynamics, and oxidative stress^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

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- [1]. Sun J, Shen W, et al. A Chinese Medicine Formula "Xian-Jia-Tang" for Treating Bladder Outlet Obstruction by Improving Urodynamics and Inhibiting Oxidative Stress through Potassium Channels. *Evid Based Complement Alternat Med.* 2017;2017:8147258.
- [2]. Soto C, et al. Alloxan decreases intracellular potassium content of the isolated frog skin epithelium. *Comp Biochem Physiol C Toxicol Pharmacol.* 2001;130(1):19-27.
- [3]. Ouyang JS, Li YP, Li CY, et al. Mitochondrial ROS-K⁺ channel signaling pathway regulated secretion of human pulmonary artery endothelial cells. *Free Radic Res.* 2012;46(12):1437-1445.
- [4]. O'Brien CE, et al. Cesium-induced QT-interval prolongation in an adolescent. *Pharmacotherapy.* 2008;28(8):1059-1065.
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Caution: Product has not been fully validated for medical applications. For research use only.

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