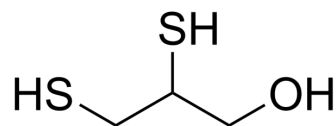


Dimercaprol

Cat. No.:	HY-B1285
CAS No.:	59-52-9
Molecular Formula:	C ₃ H ₈ OS ₂
Molecular Weight:	124.23
Target:	HIV
Pathway:	Anti-infection
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 41.67 mg/mL (335.43 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	8.0496 mL	40.2479 mL	80.4958 mL
				5 mM	1.6099 mL	8.0496 mL	16.0992 mL
				10 mM	0.8050 mL	4.0248 mL	8.0496 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (804.96 mM); Clear solution; Need ultrasonic						

BIOLOGICAL ACTIVITY

Description	Dimercaprol (2,3-Dimercapto-1-propanol) is an anti-heavy metal-poisoning agent, which exhibits anti-HIV activity. Dimercaprol can be used for the study for arsenic, mercury, gold, lead, antimony, and other toxic metal poisoning ^[1] .	
IC ₅₀ & Target	HIV ^[1]	
In Vitro	Dimercaprol (10-100 μM; 4 h) could significantly protect PC-12 cells from Acrolein-mediated cell death in a dose-dependent manner ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[2]	
	Cell Line:	PC-12 cells
	Concentration:	10, 25, 50 and 100 μM

	Incubation Time:	4 h
	Result:	Significantly protected PC-12 cells from Acrolein-mediated cell death in a dose-dependent manner.
In Vivo	<p>Dimercaprol (2,3-Dimercapto-1-propanol; 12.5-75 mg/kg; subcutaneous injection; once) increases the death percentage and decreases the mercury contents in liver and kidney^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	Wistar rats (13 days old) injected with HgCl ₂ ^[3]
	Dosage:	12.5 mg/kg, 25 mg/kg, 50 mg/kg or 75 mg/kg
	Administration:	Subcutaneous injection; once
	Result:	Decreased the mercury contents in liver and kidney.

REFERENCES

- [1]. Ran Tian, et al. Dimercaprol is an acrolein scavenger that mitigates acrolein-mediated PC-12 cells toxicity and reduces acrolein in rat following spinal cord injury. *J Neurochem*. 2017 Jun;141(5):708-720.
- [2]. Taciane Roza, et al. 2,3-Dimercapto-1-propanol does not alter the porphobilinogen synthase inhibition but decreases the mercury content in liver and kidney of suckling rats exposed to HgCl₂. *Basic Clin Pharmacol Toxicol*. 2005 Apr;96(4):302-8.
- [3]. Kubota S, et al. 2,3-Dimercapto-1-propanol inhibits HIV-1 tat activity, viral production, and infectivity in vitro. *AIDS Res Hum Retroviruses*. 1990 Jul;6(7):919-27.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA