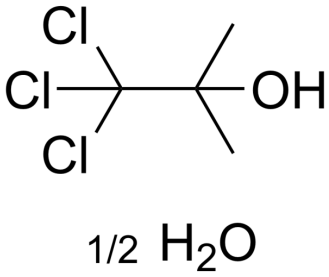
Chlorobutanol hemihydrate

Cat. No.:	HY-W089856
CAS No.:	6001-64-5
Molecular Formula:	$C_4H_7Cl_3O.{}_1/_2H_2O$
Molecular Weight:	186.46
Target:	Bacterial; Fungal
Pathway:	Anti-infection
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 : 100 mg/mL (536.31 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	5.3631 mL	26.8154 mL	53.6308 mL
	5 mM	1.0726 mL	5.3631 mL	10.7262 mL
	10 mM	0.5363 mL	2.6815 mL	5.3631 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (13.41 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (13.41 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (13.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Chlorobutanol hemihydrate is a pharmaceutical preservative. Chlorobutanol hemihydrate is active against a wide variety of Gram-positive and Gram-negative bacteria, and several mold spores and fungi. Chlorobutanol hemihydrate is widely used in food and cosmetic industry[1][2].

REFERENCES

[1]. Smoak IW, et al. Chlorobutanol: maternal serum levels and placental transfer in the mouse. Vet Hum Toxicol. 1997 Oct;39(5):287-90.

[2]. Friesen WT, et al. The antibacterial stability of chlorobutanol stored in polyethylene bottles. Am J Hosp Pharm. 1971 Jul;28(7):507-12.

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

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