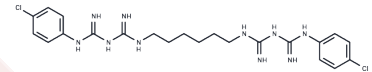


## Chlorhexidine

## Chemical Properties

CAS No. :	55-56-1
Formula:	C <sub>22</sub> H <sub>30</sub> Cl <sub>2</sub> N <sub>10</sub>
Molecular Weight:	505.45
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



## Biological Description

Description	Chlorhexidine (Rotersept) is a biguanide compound used as an antiseptic agent with topical antibacterial activity. Chlorhexidine is positively charged and reacts with the negatively charged microbial cell surface, thereby destroying the integrity of the cell membrane. Subsequently, chlorhexidine penetrates into the cell and causes leakage of intracellular components leading to cell death. Since gram-positive bacteria are more negatively charged, they are more sensitive to this agent.
Targets(IC50)	Apoptosis, Antibacterial, Antibiotic, Antifection, Necroptosis

## Solubility Information

Solubility	DMSO: 22.73 mg/mL (44.97 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.96 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.9784 mL	9.8922 mL	19.7844 mL
5 mM	0.3957 mL	1.9784 mL	3.9569 mL
10 mM	0.1978 mL	0.9892 mL	1.9784 mL
50 mM	0.0396 mL	0.1978 mL	0.3957 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Solov'eva NN, et al. Antibiotiki. 1979 Jun;24(6):436-40.

Dong L, Shen S, Chen W, et al. Discovery of Novel Inhibitors Targeting Human O-GlcNAcase: Docking-Based Virtual Screening, Biological Evaluation, Structural Modification, and Molecular Dynamics Simulation. Journal of chemical information and modeling. 2019, 59(10): 4374-4382.

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