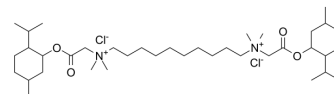


Decamethoxine

Cat. No.:	HY-108004
CAS No.:	38146-42-8
Molecular Formula:	C ₃₈ H ₇₄ Cl ₂ N ₂ O ₄
Molecular Weight:	693.91
Target:	Bacterial; Fungal
Pathway:	Anti-infection
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	DMSO : 25 mg/mL (36.03 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.4411 mL	7.2055 mL	14.4111 mL
		5 mM	0.2882 mL	1.4411 mL	2.8822 mL
		10 mM	0.1441 mL	0.7206 mL	1.4411 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (3.60 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (3.60 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Decamethoxine (Septefril) is a cationic gemini surfactant. Decamethoxine exhibits strong bactericidal and fungicidal effects. Decamethoxine modifies the permeability of the microbial cell membrane, resulting in the destruction and death of diverse microorganisms ^{[1][2]} .
In Vitro	Decamethoxine (Septefril) has a wide spectrum of antimicrobial action on Gram-positive bacteria (Staphylococcus, Streptococcus, Pneumococcus), Gram-negative bacteria (Pseudomonas, Neisseria gonorrhoeae, Chlamydia trachomatis), protozoa, dermatophyte, yeast-like fungi of Candida genus, and viruses ^[1] . Decamethoxine at a concentration of 10 µg/ml drastically reduces the adhesion of coryneform bacteria, Salmonella, Staphylococcus, and Escherichia ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Kovalchuk V, et al. Naturally Drug-Loaded Chitin: Isolation and Applications. Mar Drugs. 2019;17(10):574. Published 2019 Oct 10.
- [2]. Nazarchuk OA, et al. The research of antimicrobial efficacy of antiseptics decamethoxin, miramistin and their effect on nuclear DNA fragmentation and epithelial cell cycle. Wiad Lek. 2019;72(3):374-380.
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Caution: Product has not been fully validated for medical applications. For research use only.

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