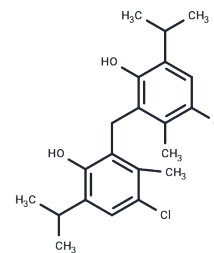


Biclotymol

Chemical Properties

CAS No. :	15686-33-6
Formula:	C ₂₁ H ₂₆ Cl ₂ O ₂
Molecular Weight:	381.34
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Biclotymol is an antimicrobial agent and a compound with inhibitory activity against Gram-positive cocci, with an MIC of 150 µM against Streptococcus pneumoniae and Haemophilus influenzae. This compound possesses anti-inflammatory, analgesic, and cell permeability properties, and is used in research related to ear-nose-throat infections and throat pain.
Targets(IC50)	Others,Antibacterial,Antifungal
In vitro	Methods: The minimum inhibitory concentration (MIC) and bactericidal kinetics of Biclotymol against various respiratory pathogens were determined through in vitro antimicrobial assays. Results: Biclotymol demonstrated the highest sensitivity against Streptococcus pneumoniae and Haemophilus influenzae (MIC = 0.15 mg/mL), exhibiting rapid bactericidal activity within less than 1 minute of exposure at 20 mg/mL in a dose-dependent manner.[1]
In vivo	Methods: Two clinical trials were conducted in patients with acute pharyngitis. An open-label trial (n=40) compared Biclotymol spray (3 times daily, 2 sprays each time) with Fusafungine (4 times daily, 4 sprays each time) for 7-10 days; a double-blind trial (n=39) compared Biclotymol spray (3 times daily, 2 sprays each time) with placebo for 4-8 days. Results: In the Biclotymol group, 50% (acute) and 34.5% (chronic) of patients rated efficacy as "good/very good," superior to Fusafungine; 80% of patients rated efficacy as "good/very good," with 65% achieving complete pain relief, significantly outperforming placebo. [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6223 mL	13.1117 mL	26.2233 mL
5 mM	0.5245 mL	2.6223 mL	5.2447 mL
10 mM	0.2622 mL	1.3112 mL	2.6223 mL
50 mM	0.0524 mL	0.2622 mL	0.5245 mL

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

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- Schammé B, Couvrat N, Malpeli P, Dudognon E, Delbreilh L, Dupray V, Dargent É, Coquerel G. Transformation of an active pharmaceutical ingredient upon high-energy milling: A process-induced disorder in Biclotymol. *Int J Pharm.* 2016 Feb 29;499(1-2):67-73. doi: 10.1016/j.ijpharm.2015.12.032. Epub 2015 Dec 17. PubMed PMID: 26707413.
- Céolin R, Tamarit JL, Barrio M, López DO, Nicolaï B, Veglio N, Perrin MA, Espeau P. Overall monotropic behavior of a metastable phase of biclotymol, 2,2'-methylenebis(4-chloro-3-methyl-isopropylphenol), inferred from experimental and topological construction of the related P-T state diagram. *J Pharm Sci.* 2008 Sep;97(9):3927-41. doi: 10.1002/jps.21285. PubMed PMID: 18200530.

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