

Dibemethine

Chemical Properties

CAS No. :	102-05-6
Formula:	C ₁₅ H ₁₇ N
Molecular Weight:	211.302
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Dibemethine is active against chloroquinone-resistant Plasmodium falciparum by the inhibition of P. falciparum chloroquine-resistance transporter (PfCRT).
Targets(IC50)	Others

Solubility Information

Solubility	DMSO: Soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.7326 mL	23.663 mL	47.3261 mL
5 mM	0.9465 mL	4.7326 mL	9.4652 mL
10 mM	0.4733 mL	2.3663 mL	4.7326 mL
50 mM	0.0947 mL	0.4733 mL	0.9465 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

Joshi MC, Okombo J, Nsumiwa S, Ndove J, Taylor D, Wiesner L, Hunter R, Chibale K, Egan TJ. 4-Aminoquinoline Antimalarials Containing a Benzylmethylpyridylmethylamine Group Are Active against Drug Resistant Plasmodium falciparum and Exhibit Oral Activity in Mice. *J Med Chem*. 2017 Dec 28;60(24):10245-10256. doi: 10.1021/acs.jmedchem.7b01537. Epub 2017 Dec 7. PubMed PMID: 29185748.

Zishiri VK, Joshi MC, Hunter R, Chibale K, Smith PJ, Summers RL, Martin RE, Egan TJ. Quinoline antimalarials containing a dibemethin group are active against chloroquinone-resistant Plasmodium falciparum and inhibit chloroquine transport via the P. falciparum chloroquine-resistance transporter (PfCRT). *J Med Chem*. 2011 Oct 13; 54(19):6956-68. doi: 10.1021/jm2009698. Epub 2011 Sep 13. PubMed PMID: 21875063.

Zishiri VK, Hunter R, Smith PJ, Taylor D, Summers R, Kirk K, Martin RE, Egan TJ. A series of structurally simple chloroquine chemosensitizing dibemethin derivatives that inhibit chloroquine transport by PfCRT. *Eur J Med Chem*. 2011 May;46(5):1729-42. doi: 10.1016/j.ejmech.2011.02.026. Epub 2011 Feb 22. PubMed PMID: 21396749.

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