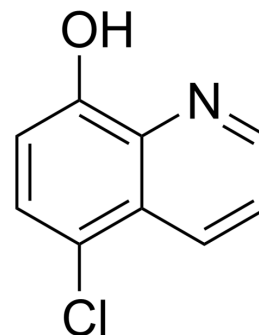


## Cloxiquine

<b>Cat. No.:</b>	HY-B0963												
<b>CAS No.:</b>	130-16-5												
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>6</sub> ClNO												
<b>Molecular Weight:</b>	179.6												
<b>Target:</b>	Bacterial; Fungal; Parasite; PPAR												
<b>Pathway:</b>	Anti-infection; Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor												
<b>Storage:</b>	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>2 years</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 year</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	2 years		-20°C	1 year
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	2 years											
	-20°C	1 year											



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (556.79 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	5.5679 mL	27.8396 mL	55.6793 mL
		5 mM	1.1136 mL	5.5679 mL	11.1359 mL
		10 mM	0.5568 mL	2.7840 mL	5.5679 mL
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (13.92 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (13.92 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Cloxiquine (5-Chloro-8-quinolinol) is an antibacterial, antifungal and antiamoebic agent. Cloxiquine can be used for the research of tuberculosis and dermatoses. Cloxiquine suppresses the growth and metastasis of melanoma cells through activation of PPAR $\gamma$ <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Amebae
<b>In Vitro</b>	Cloxiquine (cloxyquin) exhibits antituberculosis activities, with MICs ranging from 0.062 to 0.25 $\mu$ g/mL against 9 standard strains and 150 Mycobacterium tuberculosis <sup>[3]</sup> . Cloxiquine (0.5-10 $\mu$ M; 24 h) suppresses both B16F10 and A375 cell growth in a dose-dependent manner <sup>[2]</sup> .

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Cloxiquine (0.5-10  $\mu$ M; 24 h) inhibits the migration of B16F10 and A375 cells<sup>[2]</sup>.  
Cloxiquine (0.5-2.5  $\mu$ M; 24 h) suppresses glycolysis in B16F10 cells<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

Cloxiquine (5-25 mg/kg; i.p. daily for 8 d) suppresses tumor growth in a mouse B16F10 melanoma xenograft model<sup>[2]</sup>.  
Cloxiquine (5-25 mg/kg; i.p. daily for 14 d) suppresses tumor metastasis in mouse B16F10 melanoma lung metastatic model<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

- [1]. Latosińska JN, et al. Supramolecular synthon pattern in solid cloxiquinol and cloxiquine (APIs of antibacterial, antifungal, antiaging and antituberculosis drugs) studied by <sup>35</sup>Cl NQR, <sup>1</sup>H-<sup>17</sup>O and <sup>1</sup>H-<sup>14</sup>N NQDR and DFT/QTAIM. J Mol Model. 2011 Jul;17(7):1781-800.
- [2]. Zhang W, et, al. Cloxiquine, a traditional antituberculosis agent, suppresses the growth and metastasis of melanoma cells through activation of PPAR $\gamma$ . Cell Death Dis. 2019 May 28;10(6):404.
- [3]. Hongmanee P, et, al. In vitro activities of cloxyquin (5-chloroquinolin-8-ol) against Mycobacterium tuberculosis. Antimicrob Agents Chemother. 2007 Mar;51(3):1105-6.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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