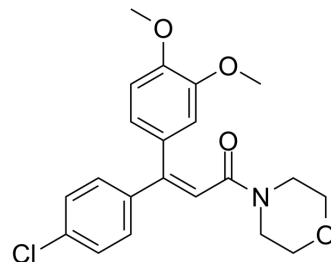


Dimethomorph

Cat. No.:	HY-B0846
CAS No.:	110488-70-5
Molecular Formula:	C ₂₁ H ₂₂ ClNO ₄
Molecular Weight:	387.86
Target:	Fungal; Androgen Receptor; Parasite
Pathway:	Anti-infection; Vitamin D Related/Nuclear Receptor
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 : 6.67 mg/mL (17.20 mM); ultrasonic and warming and heat to 60°C																									
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th>Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>Preparing Stock Solutions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1 mM</td> <td></td> <td>2.5782 mL</td> <td>12.8912 mL</td> <td>25.7825 mL</td> </tr> <tr> <td>5 mM</td> <td></td> <td>0.5156 mL</td> <td>2.5782 mL</td> <td>5.1565 mL</td> </tr> <tr> <td>10 mM</td> <td></td> <td>0.2578 mL</td> <td>1.2891 mL</td> <td>2.5782 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg	Preparing Stock Solutions					1 mM		2.5782 mL	12.8912 mL	25.7825 mL	5 mM		0.5156 mL	2.5782 mL	5.1565 mL	10 mM		0.2578 mL	1.2891 mL	2.5782 mL
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	Please refer to the solubility information to select the appropriate solvent.																									
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.67 mg/mL (1.73 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.67 mg/mL (1.73 mM); Clear solution 																									

BIOLOGICAL ACTIVITY

Description	Dimethomorph is a fungicide belongs to the fungicide group of sterol biosynthesis inhibitor. Dimethomorph can inhibit fungal cell wall formation. Dimethomorph also inhibits androgen receptor (AR) activity in MDA-kb2 cells with an IC ₂₀ of 0.263 μM ^{[1][2][3]} .
In Vitro	<p>Dimethomorph inhibits mycelial growth of the oomycete fungi <i>Phytophthora capsici</i>, <i>P. citrophthora</i>, and <i>P. parasitica</i> with EC₅₀s of <0.1 μg/mL, 0.14 μg/mL, and 0.38 μg/mL, respectively^[1].</p> <p>Dimethomorph inhibits AR activity in a reporter assay in MDA-kb2 human breast cancer cells but not in a yeast antiandrogen screen (IC₅₀s = 0.263 and 38.5 μM, respectively)^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

- [1]. M E Matheron, et al. Impact of Azoxystrobin, Dimethomorph, Fluazinam, Fosetyl-Al, and Metalaxyl on Growth, Sporulation, and Zoospore Cyst Germination of Three Phytophthora spp. Plant Dis. 2000 Apr;84(4):454-458.
- [2]. Frances Orton, et al. Widely used pesticides with previously unknown endocrine activity revealed as in vitro antiandrogens. Environ Health Perspect. 2011 Jun;119(6):794-800.
- [3]. Yigal Cohen,, et al. Differential Activity of Carboxylic Acid Amide Fungicides Against Various Developmental Stages of Phytophthora infestans. Phytopathology. 2007 Oct;97(10):1274-83.
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Caution: Product has not been fully validated for medical applications. For research use only.

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