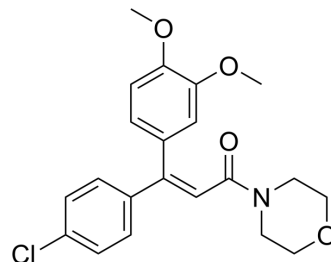


## Dimethomorph

<b>Cat. No.:</b>	HY-B0846
<b>CAS No.:</b>	110488-70-5
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>22</sub> ClNO <sub>4</sub>
<b>Molecular Weight:</b>	387.86
<b>Target:</b>	Fungal; Androgen Receptor; Parasite
<b>Pathway:</b>	Anti-infection; Vitamin D Related/Nuclear Receptor
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	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><b>Preparing Stock Solutions</b></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	<b>Preparing Stock Solutions</b>					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.																									
<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: ≥ 0.67 mg/mL (1.73 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.67 mg/mL (1.73 mM); Clear solution</li> </ol>																									

### BIOLOGICAL ACTIVITY

<b>Description</b>	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 <sub>20</sub> of 0.263 μM <sup>[1][2][3]</sup> .
<b>In Vitro</b>	<p>Dimethomorph inhibits mycelial growth of the oomycete fungi <i>Phytophthora capsici</i>, <i>P. citrophthora</i>, and <i>P. parasitica</i> with EC<sub>50</sub>s of &lt;0.1 μg/mL, 0.14 μg/mL, and 0.38 μg/mL, respectively<sup>[1]</sup>.</p> <p>Dimethomorph inhibits AR activity in a reporter assay in MDA-kb2 human breast cancer cells but not in a yeast antiandrogen screen (IC<sub>50</sub>s = 0.263 and 38.5 μM, respectively)<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

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## REFERENCES

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- [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.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA