

## **Product** Data Sheet

# (-)-Bornyl acetate

Cat. No.: HY-N0756A

CAS No.: 5655-61-8Molecular Formula:  $C_{12}H_{20}O_2$ Molecular Weight: 196.29Target: Fungal

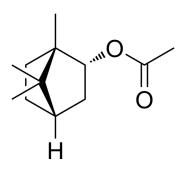
Pathway: Anti-infection

Storage: Pure form -20°C 3

Pure form -20°C 3 years 4°C 2 years

In solvent -80°C 6 months

-20°C 1 month



#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (509.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	5.0945 mL	25.4725 mL	50.9450 mL
	5 mM	1.0189 mL	5.0945 mL	10.1890 mL
	10 mM	0.5095 mL	2.5473 mL	5.0945 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility: 2.5 mg/mL (12.74 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description

(-)-Bornyl acetate (L-(-)-Bornyl acetate), isolated from hyssop oil, is a less active enantiomer of (+)-Bornyl acetate. (-)-Bornyl acetate possesses antifungal activity  $^{[1]}$ .

In Vitro

The wavy roots from seedlings exposed to (-)-bornyl acetate are significantly longer than those from seedlings exposed to ()-bornyl acetate  $^{[1]}$ .

 $(-) - Bornyl\ acetate\ (L-bornyl\ acetate), when applied\ individually\ to\ barley\ seedlings,\ reduced\ powdery\ mildew\ infection\ compared\ with\ controls\ not\ containing\ ether^{[2]}.$ 

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

[1]. Jun-Ichiro Horiuchi, et al. Exposing Arabidopsis seedlings to borneol and bornyl acetate affects root growth: Specificity due to the chemical and optical structures of the compounds. Journal of Plant Interactions Volume 2, 2007 - Issue 2.

[2]. M. P. LETESSIER ETESSIE, et al. Antifungal Activity of the Essential Oil of Hyssop (Hyssopus offcinalis). J. Phytopathology 149, 673±678 (2001).

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

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

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