



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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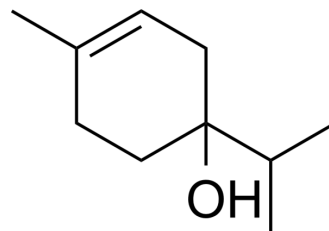
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## Terpinen-4-ol

Cat. No.:	HY-W017316
CAS No.:	562-74-3
Molecular Formula:	C <sub>10</sub> H <sub>18</sub> O
Molecular Weight:	154.25
Target:	Endogenous Metabolite; Bacterial; Fungal
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (648.30 mM; Need ultrasonic)  
 H<sub>2</sub>O : ≥ 25 mg/mL (162.07 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	6.4830 mL	32.4149 mL	64.8298 mL
	5 mM	1.2966 mL	6.4830 mL	12.9660 mL	
	10 mM	0.6483 mL	3.2415 mL	6.4830 mL	

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (648.30 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (16.21 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Terpinen-4-ol (4-Carvomenthenol) is a naturally occurring monoterpene, and can be extracted from a variety of aromatic plants. Terpinen-4-ol is a potent bactericidal agent which possess antifungal, anti-inflammatory and antitumor properties as well, suggesting Terpinen-4-ol to be used for relevant research<sup>[1][2]</sup>.

#### In Vitro

Terpinen-4-ol (0.005%-0.1% (v/v), 72 h) exerts a significant growth inhibition of colorectal, pancreatic, prostate and gastric

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cancer cells in a dose-dependent manner<sup>[2]</sup>.

Terpinen-4-ol (0.01% (v/v), 72 h) enhances cytotoxicity of the combinations with different conventional chemotherapy approaches and biological treatment tools. <sup>[2]</sup>.

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

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## REFERENCES

[1]. Shapira S, et al. Terpinen-4-ol: A Novel and Promising Therapeutic Agent for Human Gastrointestinal Cancers. PLoS One. 2016 Jun 8;11(6):e0156540.

[2]. Hart PH, et al. Terpinen-4-ol, the main component of the essential oil of *Melaleuca alternifolia* (tea tree oil), suppresses inflammatory mediator production by activated human monocytes. *Inflamm Res*. 2000 Nov;49(11):619-26.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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