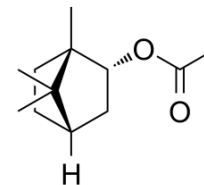


Bornyl acetate

Cat. No.:	HY-N0756		
CAS No.:	76-49-3		
Molecular Formula:	C ₁₂ H ₂₀ O ₂		
Molecular Weight:	196.29		
Target:	Apoptosis		
Pathway:	Apoptosis		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



Relative Stereochemistry

SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 83.33 mg/mL (424.52 mM)
 * "≥" means soluble, but saturation unknown.

Concentration	Mass		
	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.

BIOLOGICAL ACTIVITY

Description

Bornyl acetate is a potent odorant, exhibiting one of the highest flavor dilution factor (FD factor). Bornyl acetate possesses anti-cancer activity^{[1][2]}.

In Vitro

Bornyl acetate is characterized as one of the most important odorants of fresh ginger juice, as it exhibits one of the highest FD factors. Bornyl acetate is also identified as playing very important sensory roles in the aroma of fresh Japanese ginger^[1]. Bornyl acetate (0-96 μM) induces dose-dependent growth inhibitory effects on human gastric cancer cells in vitro^[2]. Combined effect of Bornyl acetate (48 μM) and 5-FU on SGC-7901 human gastric cancer cell death via apoptosis^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Pang X, et al. Identification of Ginger (*Zingiber officinale* Roscoe) Volatiles and Localization of Aroma-Active Constituents by GC-Olfactometry. *J Agric Food Chem.* 2017 May 24;65(20):4140-4145.

[2]. Juan Li, et al. Synergistic enhancement of the antitumor activity of 5-fluorouracil by bornyl acetate in SGC-7901 human gastric cancer cells and the determination of the underlying mechanism of action. J BUON. Jan-Feb 2016;21(1):108-17.

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

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