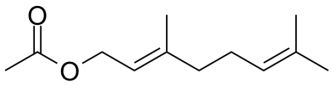
Geranyl acetate

Cat. No.:	HY-N7070
CAS No.:	105-87-3
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



SOLVENT & SOLUBILITY

In Vitro

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

Preparing Stock Solutions	Mass / Solvent / 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-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Geranyl acetate, an acyclic monoterpene ester derived from geraniol, is widely used in the cosmetics industry due to its pleasant scent[1]. Geranyl acetate can induces cell apoptosis[2].

In Vitro

Geranyl acetate exhibits significant anti-cancer activity against colo-205 cancer cell line with IC_{50} value of 30 μM[2]. Geranyl acetate induces apoptosis in colo-205 cells, this apoptosis is associated with upregulation of Bax and downregulation of Bcl-2 expressions[2].

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

CUSTOMER VALIDATION

- Plants. 2021, 10(5), 966.

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REFERENCES

[1]. Wu T, et al. Engineering Saccharomyces cerevisiae for the production of the valuable monoterpene ester geranyl acetate. Microb Cell Fact. 2018 Jun 5;17(1):85.

[2]. Qi F, et al. Geraniol and geranyl acetate induce potent anticancer effects in colon cancer Colo-205 cells by inducing apoptosis, DNA damage and cell cycle arrest. J BUON. 2018 Mar-Apr;23(2):346-352.

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

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