Beta-Sitosterol (purity>98%)

Cat. No.: HY-N0171A CAS No.: 83-46-5 Molecular Formula: $C_{29}H_{50}O$ Molecular Weight: 414.71

Target: Apoptosis; Endogenous Metabolite Pathway: Apoptosis; Metabolic Enzyme/Protease

-20°C, protect from light Storage:

* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

Ethanol: 5 mg/mL (12.06 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg	
	1 mM	2.4113 mL	12.0566 mL	24.1132 mL	
	5 mM	0.4823 mL	2.4113 mL	4.8226 mL	
	10 mM	0.2411 mL	1.2057 mL	2.4113 mL	

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

In Vivo

- 1. Add each solvent one by one: corn oil Solubility: 10 mg/mL (24.11 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- 2. Add each solvent one by one: 15% Cremophor EL >> 85% Saline Solubility: 5 mg/mL (12.06 mM); Suspended solution; Need ultrasonic and warming and heat to 60°C
- 3. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (2.41 mM); Suspended solution
- 4. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: 1 mg/mL (2.41 mM); Suspended solution; Need ultrasonic
- 5. Add each solvent one by one: 10% EtOH >> 90% corn oil Solubility: ≥ 1 mg/mL (2.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Beta-Sitosterol (purity>98%) is a plant sterol. Beta-Sitosterol (purity>98%) interfere with multiple cell signaling pathways, including cell cycle, apoptosis, proliferation, survival, invasion, angiogenesis, metastasis and inflammation^[1].

In Vitro

Beta-Sitosterol is one of the most abundant dietary phytosterols. Beta-Sitosterol shows anticancer properties against breast

cancer, prostate cancer, colon cancer, lung cancer, stomach cancer, ovarian cancer, and leukemia $^{[1]}$.

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

CUSTOMER VALIDATION

- Acta Neuropathol Commun. 2020 Apr 22;8(1):56.
- Front Oncol. 2022 Aug 10;12:882784.
- Biosci Rep. 2020 Oct 30;40(10):BSR20201349.
- Research Square Preprint. 2021. Jul.
- Evid-Based Compl Alt. 2020 Apr 29;2020:2760979.

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[1]. Bin Sayeed MS, et al. Beta-Sitosterol: A Promising but Orphan Nutraceutical to Fight Against Cancer. Nutr Cancer. 2015;67(8):1214-20.

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