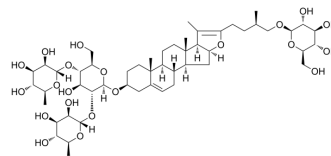


Pseudoprotodioscin

| | |
|---------------------------|--|
| Cat. No.: | HY-N0686 |
| CAS No.: | 102115-79-7 |
| Molecular Formula: | C ₅₁ H ₈₂ O ₂₁ |
| Molecular Weight: | 1031.18 |
| Target: | Fatty Acid Synthase (FASN); MicroRNA |
| Pathway: | Metabolic Enzyme/Protease; Epigenetics |
| Storage: | -20°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light) |



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (96.98 mM)
 DMSO : 100 mg/mL (96.98 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent | Mass | 1 mg | 5 mg | 10 mg |
|---------------------------|---------------|------|-----------|-----------|-----------|
| | Concentration | | | | |
| | 1 mM | | 0.9698 mL | 4.8488 mL | 9.6976 mL |
| | 5 mM | | 0.1940 mL | 0.9698 mL | 1.9395 mL |
| | 10 mM | | 0.0970 mL | 0.4849 mL | 0.9698 mL |

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (2.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (2.42 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (2.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pseudoprotodioscin, a furostanoside, inhibits SREBP1/2 and microRNA 33a/b levels and reduces the gene expression regarding the synthesis of cholesterol and triglycerides^[1].

In Vitro

In Hep G2 cells, Pseudoprotodioscin increases ABCA1 protein and mRNA levels, and promotes the effluxion of ApoA-1-mediated cholesterol. Pseudoprotodioscin inhibits SREBP1c and SREBP2 transcription by decreasing microRNA 33a/b levels. This procedure reciprocally lead to the increase of ABCA1 levels. In THP-1 macrophages, Pseudoprotodioscin shows the similar effect, which reduces HMGCR, FAS and ACC mRNA levels and promotes low density lipoprotein receptor by

decreasing the PCSK9 levels^[1].

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

CUSTOMER VALIDATION

- Int J Mol Sci. 2021 May 31;22(11):5951.

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REFERENCES

[1]. Liang ZZ, et al. Oligofurostanosides from *Asparagus cochinchinensis*. *Planta Med.* 1988 Aug;54(4):344-6.

[2]. Gai Y, et al. Pseudoprotodioscin inhibits SREBPs and microRNA 33a/b levels and reduces the gene expression regarding the synthesis of cholesterol and triglycerides. *Fitoterapia.* 2019 Nov;139:104393.

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

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