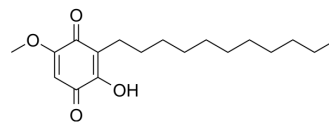


5-O-Methylembelin

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-W510159 | | |
| CAS No.: | 56005-10-8 | | |
| Molecular Formula: | C ₁₈ H ₂₈ O ₄ | | |
| Molecular Weight: | 308.41 | | |
| Target: | Ser/Thr Protease | | |
| Pathway: | Metabolic Enzyme/Protease | | |
| Storage: | Powder | -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 (324.24 mM; Need ultrasonic)

| Concentration | Solvent | Mass | 1 mg | | | 5 mg | | | 10 mg | | |
|---------------|---------|------|---------------|--|--|---------------|--|--|---------------|--|--|
| | | | Concentration | | | Concentration | | | Concentration | | |
| 1 mM | | | 3.2424 mL | | | 16.2122 mL | | | 32.4244 mL | | |
| 5 mM | | | 0.6485 mL | | | 3.2424 mL | | | 6.4849 mL | | |
| 10 mM | | | 0.3242 mL | | | 1.6212 mL | | | 3.2424 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 (8.11 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.5 mg/mL (8.11 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: 2.5 mg/mL (8.11 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

5-O-Methylembelin is a natural isocoumarin that inhibits PCSK9, inducible degrader of the low-density lipoprotein receptor (LDLR), and sterol regulatory element binding protein 2 (SREBP2) mRNA expression^[1].

In Vitro

5-O-Methylembelin (compound 3; 20 μM; 24 h) downregulates PCSK9 (IC₅₀ value of 4.9 μM), LDLR, and SREBP2 mRNA expression significantly^[1].

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

RT-PCR^[1]

| | |
|------------------|--|
| Cell Line: | HepG2 cells |
| Concentration: | 20 μ M |
| Incubation Time: | 24 h |
| Result: | Inhibited PCSK9, IDOL, and SREBP2 mRNA expression. |

REFERENCES

[1]. Pisey Pel, et al. Isocoumarins and Benzoquinones with Their Proprotein Convertase Subtilisin/Kexin Type 9 Expression Inhibitory Activities from Dried Roots of *Lysimachia vulgaris*. ACS Omega. 2022 Dec 8;7(50):47296-47305.

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

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