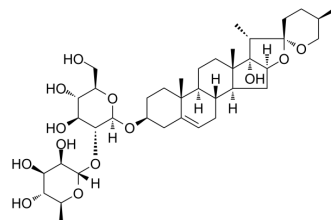


Polyphyllin VI

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-N0816 | | |
| CAS No.: | 55916-51-3 | | |
| Molecular Formula: | C ₃₉ H ₆₂ O ₁₃ | | |
| Molecular Weight: | 738.9 | | |
| Target: | Apoptosis; Pyroptosis | | |
| Pathway: | Apoptosis; Immunology/Inflammation | | |
| 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 (135.34 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|-----------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 1.3534 mL | 6.7668 mL | 13.5336 mL |
| | 5 mM | 0.2707 mL | 1.3534 mL | 2.7067 mL |
| | 10 mM | 0.1353 mL | 0.6767 mL | 1.3534 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 (3.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (3.38 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (3.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Polyphyllin VI, an active saponin, possess anti-cancer activities. Polyphyllin VI induces G2/M cell cycle arrest and triggers apoptosis^{[1][2]}. Polyphyllin VI induces caspase-1-mediated pyroptosis via the induction of ROS/NF-κB/NLRP3/GSDMD signal axis in non-small cell lung cancer^[3].

REFERENCES

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- [1]. Lin Z, et al. Anti-lung Cancer Effects of Polyphyllin VI and VII Potentially Correlate with Apoptosis In Vitro and In Vivo. *Phytother Res.* 2015 Oct;29(10):1568-76.
- [2]. Liu Y, et al. Molecular Mechanisms of Apoptosis in HepaRG Cell Line Induced by Polyphyllin VI via the Fas Death Pathway and Mitochondrial-Dependent Pathway. *Toxins (Basel)*. 2018 May 15;10(5). pii: E201.
- [3]. Jin-Feng Teng, et al. Polyphyllin VI Induces Caspase-1-Mediated Pyroptosis via the Induction of ROS/NF- κ B/NLRP3/GSDMD Signal Axis in Non-Small Cell Lung Cancer. *Cancers (Basel)*. 2020 Jan 13;12(1):193.
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Caution: Product has not been fully validated for medical applications. For research use only.

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