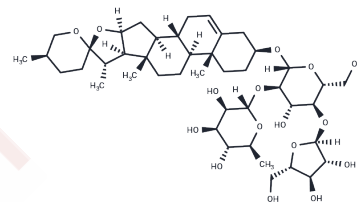


Polyphyllin I

Chemical Properties

| | |
|-------------------|--|
| CAS No. : | 50773-41-6 |
| Formula: | C44H70O16 |
| Molecular Weight: | 855.02 |
| Appearance: | no data available |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year |



Biological Description

| | |
|---------------|--|
| Description | Polyphyllin D induces apoptosis via the mitochondrial apoptotic pathway as evidenced by decreased Bcl-2 expression levels, disruption of MMP and increased Bax, cytochrome C, and cleaved-caspase-3 levels. Polyphyllin D has an anti-angiogenic effect. Polyphyllin D has toxicity in human RBCs as well as its underlying mechanism for the hemolysis and eryptosis/erythroptosis. Polyphyllin D has strong anticancer activity, can overcome drug resistance in R-HepG2 cells and elicit programmed cell death via mitochondrial dysfunction. |
| Targets(IC50) | Apoptosis,Akt,PDK,Autophagy,JNK,mTOR |

Solubility Information

| | |
|------------|---|
| Solubility | DMSO: 55 mg/mL (64.33 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|------------|
| 1 mM | 1.1696 mL | 5.8478 mL | 11.6956 mL |
| 5 mM | 0.2339 mL | 1.1696 mL | 2.3391 mL |
| 10 mM | 0.117 mL | 0.5848 mL | 1.1696 mL |
| 50 mM | 0.0234 mL | 0.117 mL | 0.2339 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Wu L, et al. Polyphyllin D induces apoptosis in K562/A02 cells through G2/M phase arrest. Wu L1, Li Q, Liu Y. J Pharm Pharmacol. 2014 May;66(5):713-21.

Zhang D, Tian X, Wang Y, et al. Polyphyllin I ameliorates gefitinib resistance and inhibits the VEGF/VEGFR2/p38 pathway by targeting HIF-1 α in lung adenocarcinoma. Phytomedicine. 2024: 155690.

Yu Q, et al. Polyphyllin D induces apoptosis in U87 human glioma cells through the c-Jun NH2-terminal kinase pathway. J Med Food. 2014 Sep;17(9):1036-42.

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481