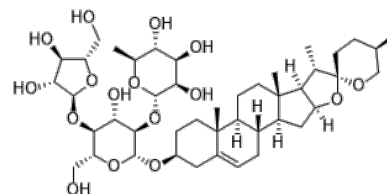


Product Name : Polyphyllin I
Cat. No. : PC-27528
CAS No. : 50773-41-6
Molecular Formula : C₄₄H₇₀O₁₆
Molecular Weight : 855.03
Target : PI3K
Solubility : 10 mM in DMSO



Biological Activity

Polyphyllin I is a steroidal saponin isolated from Paris polyphylla with broad and strong anticancer effect, induces autophagy and cell cycle arrest via inhibiting **PDK1/Akt/mTOR** signal, inhibits **PI3K** kinase with IC₅₀ of 0.84 uM. Polyphyllin I ameliorates gefitinib resistance and inhibits the VEGF/VEGFR2/p38 pathway by targeting HIF-1a in lung adenocarcinoma.

Polyphyllin I shows potent cytotoxicity on AML cells MOLM-13 with IC₅₀ of 0.44 uM.

Polyphyllin I causes ferroptosis via the accumulation of intracellular iron concentration and triggering lipid peroxidation.

Polyphyllin I significantly inhibited tumor progression and prolonged mouse survival at 4 mg/kg with well tolerance in acute myeloid leukemia (AML).

References

Zhou X, et al. *Phytomedicine*. 2026 Jan;150:157658.

Zhou X, et al. *J Nat Med*. 2024 Jun;78(3):618-632.

He J, et al. *Biomed Pharmacother*. 2019 Sep;117:109189.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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