

(+) -Apogossypol

Catalog No: tcsc3563



Available Sizes

Size: 5mg

Size: 10mg



Specifications

CAS No:

66389-74-0

Formula:

$C_{28}H_{30}O_6S$

Pathway:

Apoptosis

Target:

Bcl-2 Family

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

Apogossypol;NSC736630

Observed Molecular Weight:

494.6

Product Description

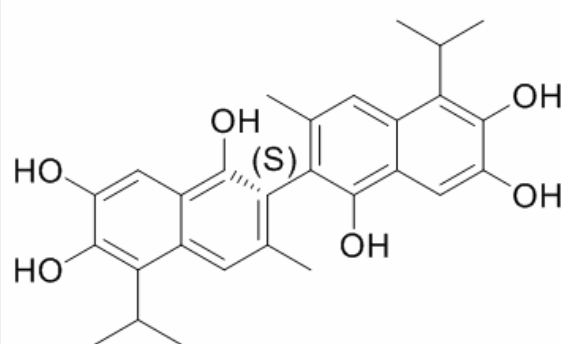
(+)-Apogossypol is a **pan-BCL-2** antagonist. (+)-Apogossypol binds to **Mcl-1**, **Bcl-2** and **Bcl-xL** with **EC₅₀**s of 2.6, 2.8 and 3.69 μ M, respectively.

IC₅₀ & Target: EC₅₀: 2.60 μ M (Mcl-1), 2.80 μ M (Bcl-2), 3.69 μ M (Bcl-xL)^[1]

K_d: 1.70 μ M (Bcl-xL)^[1]

In Vitro: In agreement with NMR binding and fluorescence polarization assays (FPAs) data, (+)-Apogossypol displays potent binding affinity to Bcl-xL with K_d values of 1.7 μ M^[1]. To investigate the inhibitory effects of (+)-Apogossypol and Gossypol on LNCaP cell survival, the MTT assay is performed. The results demonstrate that (+)-Apogossypol inhibits the proliferation of LNCaP cells in a time- and dose-dependent manner, in a similar way with Gossypol. The concentration for 50% inhibition (IC₅₀) on LNCaP cells within ~72 h is 9.57 μ M, while the IC₅₀ of Gossypol on LNCaP cells is 10.35 μ M^[2].

In Vivo: Due to its modified structure, (+)-Apogossypol is expected to exhibit lower toxicity while maintaining the significant anti-growth and anti-tumor activities in vitro, similar to those of Gossypol. The anti-cancer effect of (+)-Apogossypol is evaluated in mice bearing subcutaneous LNCaP cell xenografts. The tumor growth is monitored and measured by a caliper and balance. The survival rate of the mice is notably improved by (+)-Apogossypol. Of note, the tumor sizes are also markedly decreased by (+)-Apogossypol treatment (P[2]).



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