Web: www.taiclone.com
Tel: +886-2-2735-9682
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(+) -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 **EC_{50}**s of 2.6, 2.8 and 3.69 μM, respectively.

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

Kd: 1.70 μM (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 μM[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 (IC_{50}) on LNCaP cells within ~72 h is 9.57 μM, while the IC_{50} of Gossypol on LNCaP cells is 10.35 μM[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].