Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Salinomycin (sodium salt)

Catalog No: tcsc1493

Available Sizes

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
55721-31-8

Formula:
$C_{42}H_{69}NaO_{11}$

Pathway:
Anti-infection

Target:
Bacterial

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 15 mg/mL (19.41 mM)

Alternative Names:
Salinomycin sodium;Sodium salinomycin

Observed Molecular Weight:
772.98

Product Description

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Salinomycin sodium salt is an anticoccidial drug with potent **anti-bacterial** activity and an novel anticancer agent targeting human cancer stem cells.

IC50 & Target: bacterial[1]

In Vitro: Salinomycin (0.1-8 μM) inhibits the growth of HUVECs in a dose-dependent manner, accounting for 32.1 and 59.2% inhibition at 4 and 8 μM, respectively. HUVECs exposed to 2, 4 and 8 μM of Salinomycin for 48 h show a dose-dependent reduction in cell number and a change in cell morphology. Salinomycin (4 μM) treatment effectively inhibits HUVEC migration and invasion, and significantly disrupt the capillary-like tube formation of HUVECs. Salinomycin significantly suppresses the expression levels of phosphorylated (p)-FAK in a time- and dose-dependent manner in HUVECs. Salinomycin inhibits HUVEC angiogenesis by disturbing the VEGF-VEGFR2-AKT signaling axis[1]. Combination of RSVL and Salinomycin synergistically inhibits the proliferation of TNBC (MDA-MB-231) cells. RSVL and Salinomycin effectively reduce wound healing, colony and tumorosphere forming capability in TNBC cells. Synergistic combination of RSVL and Salinomycin induces apoptosis in both culture conditions by significant upregulation of Bax with decreased Bcl-2 expression as comparison to untreated and alone drug treatments[2]. Salinomycin (0, 2, 4, 8 and 16 μM) significantly inhibits the proliferation of A2780 and SK-OV-3 cell lines in a dose- and time-dependent manner, ($IC_{50\ 24h}$: 13.8 μM, $IC_{50\ 48h}$: 6.888 μM and $IC_{50\ 72h}$: 4.382 μM for A2780 cell lines), ($IC_{50\ 24h}$: 12.7 μM, $IC_{50\ 48h}$: 9.869 μM and $IC_{50\ 72h}$: 5.022 μM for SK-OV-3 cell lines). Salinomycin blocks the Wnt/β-catenin pathway in EOC cells[3]. Salinomycin (2 μM) reduces cancer cell proliferation, inhibits STAT3 phosphorylation and P38 and β-catenin expressions, and suppresses epithelial-mesenchymal transition in colorectal cancer cells. Salinomycin (1-5 μM) inhibits cancer cell proliferation and STAT3 signaling in colorectal cancer cells. Furthermore, Salinomycin activates Akt (Ser 473) and down-regulates Hsp27 (Ser 82) phosphorylation in HT-29 and SW480. Salinomycin down-regulates hTERT and reduces telomerase activity when combined with telomerase inhibitor[4].

In Vivo: Salinomycin (5 and 10 mg/kg) significantly supresses the average tumor volume and tumor weight. Salinomycin hinders the U251 human glioma cell growth in vivo via inhibition of angiogenesis with involvement of AKT and FAK dephosphorylation[1]. Salinomycin (0.5 mg/kg b.wt.) enhances the mean survival time of the tumor bearing Swiss albino mice[2].