Product Data Sheet

Chemical Properties

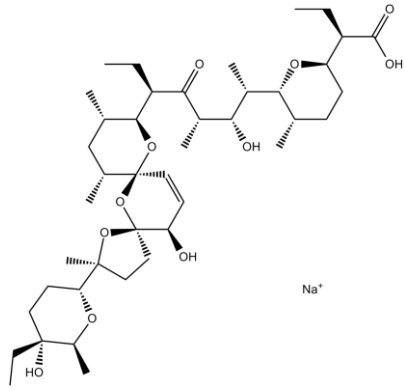
Product Name: Salinomycin sodium salt

Cas No.: 55721-31-8

M.Wt: 773.99

Formula: C42H70NaO11+

Synonyms: Salinomycin sodium;Sodium salinomycin



Chemical Name: sodium;2-[6-[6-[3-(5-ethyl-5-hydroxy-6-methyloxan-2-yl)-15-hydroxy-3,10,12-trimethyl-4,6,8-trioxadispiro[4.1.57.35]pentadec-13-en-9-yl]-3-hydroxy-4-methyl-5-oxooctan-2-yl]-5-methyloxan-2-yl]butanoate

Canonical SMILES: CCC(C1CCC(C(O1)C(C)C(C(C)C(=O)C(CC)C2C(CC(C3(O2)C=CC(C4(O3)CCC(O4)(C)C5CCC(C(O5)C)(CC)O)O)C)C)O)C)C(=O)O.[Na]

Solubility: limited solubility in DMSO and Ethanol

Storage: Store at -20°C

General tips: For obtaining a higher solubility , please warm the tube at 37° C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20° C for several months.

Shopping Condition: Evaluation sample solution : ship with blue ice
All other available size: ship with RT , or blue ice upon request

Biological Activity

Targets : Microbiology & Virology

Pathways: Antibiotic

Description:

IC50: 7.7, 13.7 and 10.4 μM for HepG2, SMMC-7721 and BEL-7402 cell line, respectively (after 24h treatment)
Salinomycin (Sal) sodium salt, which is a polyether ionophore antibiotic from Streptomyces albus,

has been proven to be able to kill different types of human cancer cells, most likely via interfering with ABC drug transporters, the Wnt/β-catenin signaling pathway, or other pathways.
In vitro: Several hepatocellular carcinoma (HCC) cell lines were treated with Sal. Results showed that Sal inhibited proliferation and decreased PCNA levels. Cell cycle analysis showed that Sal caused cell cycle arrest in different phases. Sal induced apoptosis as characterized by an increase in the Bax/Bcl-2 ratio. Compared to control, β-catenin expression was down-regulated by Sal treatment significantly. The Ca2+ concentration in HCC cells was examined by flow cytometry and it was found that higher Ca2+ concentrations were observed in Sal treatment groups [1].
In vivo: The in vivo anti-tumor effect of Sal was verified using the hepatoma orthotopic tumor model and results showed that the liver tumor size in Sal-treated groups decreased. Immunohistochemistry and TUNEL staining also demonstrated that Sal could in vivo inhibit proliferation and induced apoptosis [1].
Clinical trial: N/A

***Reference**:*

[1] Wang F,He L,Dai WQ,Xu YP,Wu D,Lin CL,Wu SM,Cheng P,Zhang Y,Shen M,Wang CF,Lu J,Zhou YQ,Xu XF,Xu L,Guo CY. Salinomycin inhibits proliferation and induces apoptosis of human hepatocellular carcinoma cells in vitro and in vivo. PLoS One.2012;7(12):e50638.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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