



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

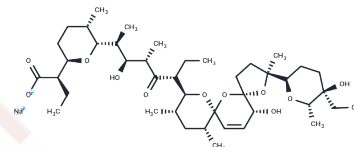
[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Salinomycin sodium salt

## Chemical Properties

CAS No. :	55721-31-8
Formula:	C <sub>42</sub> H <sub>69</sub> NaO <sub>11</sub>
Molecular Weight:	772.98
Appearance:	no data available
Storage:	store at low temperature
	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Salinomycin sodium salt (Sodium salinomycin), an antibiotic potassium ionophore, is an effective inhibitor of Wnt/ $\beta$ -catenin signaling.
Targets(IC <sub>50</sub> )	Apoptosis,Wnt/beta-catenin,Antibacterial,Antibiotic,Autophagy
In vitro	Salinomycin (0.1-8 $\mu$ M) inhibits the growth of HUVECs in a dose-dependent manner, accounting for 32.1 and 59.2% inhibition at 4 and 8 $\mu$ M, respectively. HUVECs exposed to 2, 4 and 8 $\mu$ M of Salinomycin for 48 h show a dose-dependent reduction in cell number and a change in cell morphology. Salinomycin (4 $\mu$ M) 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]. A combination of RSVL and Salinomycin synergistically inhibits the proliferation of TNBC (MDA-MB-231) cells. RSVL and Salinomycin effectively reduce wound healing, colony and tumorsphere forming capability in TNBC cells [2]. Salinomycin (0, 2, 4, 8 and 16 $\mu$ M) significantly inhibits the proliferation of A2780 and SK-OV-3 cell lines in a dose- and time-dependent manner, (IC <sub>50</sub> 24h: 13.8 $\mu$ M, IC <sub>50</sub> 48h: 6.888 $\mu$ M and IC <sub>50</sub> 72h: 4.382 $\mu$ M for A2780 cell lines), (IC <sub>50</sub> 24h: 12.7 $\mu$ M, IC <sub>50</sub> 48h: 9.869 $\mu$ M and IC <sub>50</sub> 72h: 5.022 $\mu$ M for SK-OV-3 cell lines). Salinomycin blocks the Wnt/ $\beta$ -catenin pathway in EOC cells [3]. Salinomycin (2 $\mu$ M) reduces cancer cell proliferation, inhibits STAT3 phosphorylation and P38 and $\beta$ -catenin expressions, and suppresses epithelial-mesenchymal transition in colorectal cancer cells. Salinomycin (1-5 $\mu$ M) 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) effectively reduces both the average tumor volume and weight, demonstrating its ability to inhibit U251 human glioma cell proliferation in vivo, chiefly through obstructing angiogenesis and the dephosphorylation of AKT and FAK [1]. Additionally, Salinomycin (0.5 mg/kg b.wt.) significantly prolongs the mean survival time of tumor-bearing Swiss albino mice [2].
Cell Research	Briefly, HUVECs (6,000 cells/well) are seeded in 96-well culture plates for 24 h and incubated with different concentrations of Salinomycin. In the preliminary experiments,

Salinomycin treatment for 12, 24, 48 and 72 h shows time-dependent effects on cell growth inhibition. However, treatment for 48 h is the optimal time and is selected for further mechanism evaluation. After Salinomycin treatment for 48 h, 20  $\mu$ L/well of MTT solution (5 mg/mL) is added and incubated for 5 h. The medium is aspirated and replaced with 200  $\mu$ L/well of DMSO to dissolve the formazan Salinomycin formed. The color intensity of the formazan solution is measured at 570 nm by a microplate spectrophotometer. The cell viability is expressed as % of the control (as 100%) [1].

Animal Research	Human glioma U251 cells ( $1 \times 10^7$ ) suspended in 100 $\mu$ L PBS are injected into the right lower hind flank of each 6-week-old male nude mouse. The mice are then randomly assigned into three groups of 10 mice in each group. After one week, Salinomycin (5 and 10 mg/kg) is administered into the caudal vein every other day for 16 days. Control mice receive an equal volume of vehicle (Salinomycinine) only. Bodyweight and tumor volume are monitored every two days. At the end of the experiments, tumors are excised, photographed, and weighed. Tumors from each group are used for western blotting and immunohistochemical assay [1].
-----------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Solubility Information

Solubility	DMSO: 12 mg/mL (15.53 mM), ( $< 1$ mg/mL refers to the product slightly soluble or insoluble)
------------	--------------------------------------------------------------------------------------------------

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.2937 mL	6.4685 mL	12.9369 mL
5 mM	0.2587 mL	1.2937 mL	2.5874 mL
10 mM	0.1294 mL	0.6468 mL	1.2937 mL
50 mM	0.0259 mL	0.1294 mL	0.2587 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

Lu D, et al. Salinomycin inhibits Wnt signaling and selectively induces apoptosis in chronic lymphocytic leukemia cells. Proc Natl Acad Sci U S A. 2011 Aug 9;108(32):13253-7.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

**This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use**

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481