Product Information

Salinomycin, Ready Made Solution from *Streptomyces albus*

Catalog Number S6201
Storage Temperature –20 °C

CAS RN 53003-10-4

![Salinomycin structure](image)

Product Description
Molecular Weight: 751.00
Molecular formula: C\textsubscript{42}H\textsubscript{70}O\textsubscript{11}

Salinomycin is a monocarboxylic polyether antibiotic with unique tricyclic spiroketal ring systems and an unsaturated six-membered ring in the molecule.\textsuperscript{1} It has antimicrobial and anticoccidial activities, and is an alkali ion carrier with affinity for cations with preference for K\textsuperscript{+} over other monovalent and divalent cations.\textsuperscript{2}

Polyether antibiotics (also called carboxylic ionophores) facilitate bidirectional ion flux through the lipid barrier of membranes causing interference with natural ion transport systems both in prokaryotic and eukaryotic cells.\textsuperscript{2-6} It has been shown tumor cells express elevated levels of various types of K\textsuperscript{+} channels, which enhances cell proliferation. Thus, drugs acting as channel blockers inhibit cell proliferation.\textsuperscript{4,5}

Being a highly selective potassium ionophore, Salinomycin may interfere with the function of potassium channels in cancer stem cells (CSCs).\textsuperscript{5} Established cancer therapies may fail because they kill the bulk tumor cells but do not eliminate CSCs. Recent studies indicate salinomycin selectively eradicates breast CSCs.\textsuperscript{5} Salinomycin may eliminate CSCs by inducing their differentiation. Salinomycin was also found to suppress the metastatic migration of 4T1 cells to the lungs.\textsuperscript{5}

The product is supplied as a 0.2 µm-filtered, 2 mg/mL (2.66 mM) solution in DMSO.

Salinomycin is also soluble in alcohols, esters, chloroform, ether, carbon tetrachloride, and hexane; insoluble in water.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store the product sealed at –20 °C. Under these conditions the product is stable for at least 2 years.

References