

# Monensin sodium salt

Catalog No: tcsc0007881



## Available Sizes

**Size:** 100mg



## Specifications

**CAS No:**

22373-78-0

**Formula:**

$C_{36}H_{61}NaO_{11}$

**Pathway:**

Anti-infection

**Target:**

Bacterial

**Purity / Grade:**

>98%

**Solubility:**

DMSO :

**Alternative Names:**

Monensin A sodium salt

**Observed Molecular Weight:**

692.85

## Product Description

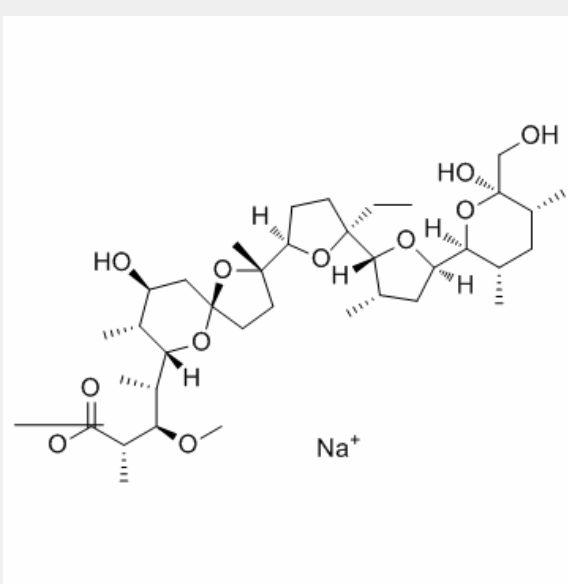
Monensin sodium salt is an antibiotic secreted by the bacteria *Streptomyces cinnamonensis*.

IC50 & Target: bacterial<sup>[1]</sup>

**In Vitro:** Monensin sodium salt is an antibiotic secreted by the bacteria *Streptomyces cinnamonensis*. Untreated cells display 2.5%

apoptosis; 48 hours treatment with 1  $\mu\text{M}$  Monensin sodium salt shows 4.5% apoptosis whereas 5  $\mu\text{M}$  Monensin sodium salt for 48 hours induces a greater apoptotic response (16.4%). Pretreatment with either 1 or 5  $\mu\text{M}$  Monensin sodium salt for 24 hours followed by 10  $\mu\text{M}$  erlotinib treatment for another 24 hours results in a marked increases in apoptotic events (14.6% and 38.7%, respectively) when compare with either Monensin sodium salt or erlotinib treatments alone. Combination of 5  $\mu\text{M}$  Monensin sodium salt with 10  $\mu\text{M}$  erlotinib shows the highest percentage of apoptosis (38.7%)<sup>[1]</sup>.

***In Vivo:*** Although the numbers of tumors do not change substantially, a significant ( $P=0.0144$ ) reduction in the average size of lesions is observed in Monensin sodium salt-treated  $\text{Apc}^{+/\text{Min}}$  mice when compare with control animals (mean  $0.199 \text{ mm}^2$  vs.  $0.299 \text{ mm}^2$ ). The total tumor area estimated in one animal is decreased in individuals receiving Monensin sodium salt (mean  $10.16 \text{ mm}^2$  vs.  $16.46 \text{ mm}^2$ ;  $P=0.0125$ ). Monensin sodium salt treatment increases the numbers of apoptotic cells and cells expressing the p21 cell-cycle inhibitor at the surface area of the neoplastic outgrowths. No changes in the cell proliferation, differentiation, and tissue architecture in the healthy parts of mucosa are noted after exposure to Monensin sodium salt<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!