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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[1]

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

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apoptosis; 48 hours treatment with 1 μM Monensin sodium salt shows 4.5% apoptosis whereas 5 μM Monensin sodium salt for 48 hours induces a greater apoptotic response (16.4%). Pretreatment with either 1 or 5 μM Monensin sodium salt for 24 hours followed by 10 μM 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 μM Monensin sodium salt with 10 μM erlotinib shows the highest percentage of apoptosis (38.7%)[1].

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 $Apc^{+/Min}$ mice when compare with control animals (mean 0.199 mm^2 vs. 0.299 mm^2). The total tumor area estimated in one animal is decreased in individuals receiving Monensin sodium salt (mean 10.16 mm^2 vs. 16.46 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[2].