
Product Data Sheet

Product Name: Resistomycin

Cat. No.: GC13832

Chemical Properties

Cas. No. 20004-62-0

Chemical Name 3,5,7,10-tetrahydroxy-1,1,9-trimethyl-2H-benzo[cf]pyrene-2,6(1H)-dione

SMILES O=C1C(C)(C)C2=C3C4=C(C(O)=CC(C)=C4C(O)=C2)C(C5=C(O)C=C(O)C1=C53)=OFormula $C_{22}H_{16}O_6$ M.Wt 376.4

Solubility Soluble in DMSO;dimethyl formamide 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.

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

Structure **Background**

Resistomycin is a natural antibiotic.

Resistomycin is a natural antibiotic produced by several actinobacteriae, such as Streptomyces.

In vitro: Resistomycin, a tetrahydroxyanthrone derivative, was isolated from the culture broth of Streptomyces sulphureus and a similar polyphenolic dianthraquinone, hypericin, was isolated from an extract of Hypericum perforatum L. as modulators for apoptosis. In human megakaryoblastic leukemia CMK-7 cells, resistomycin could inhibit apoptosis induced by actinomycin D (AD) with or without acceleration by colcemid (CL), IC50 for inhibition against AD-induced apoptosis was about 0.5 μM and IC50 for inhibition against AD plus CL-induced apoptosis was about 1 μM. CL alone induced weak apoptosis in cells, which could be enhanced by resistomycin. Moreover, it was found that both hypericin and resistomycin were able to scavenge superoxide anion radicals at the same rate as

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luteolin. In addition, PKC in CMK-7 cells could be inhibited by hypericin and luteolin, but not obviously inhibited by resistomycin [1].

In vivo: Up to now, there is no animal in vivo data reported.

Clinical trial: So far, no clinical study has been conducted.

Reference:

[1] Shiono, Y. ,Shiono, N.,Seo, S., et al. Effects of polyphenolic anthrone derivatives, resistomycin and hypericin, on apoptosis in human megakaryoblastic leukemia CMK-7 cell line. Z. Naturforsch. C. 57(9-10), 923-929 (2002).

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