Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Amrubicin (hydrochloride)

Catalog No: tcsc2837

Available Sizes

Size: 1mg

Size: 5mg

Specifications

CAS No:
110311-30-3

Formula:
$C_{25}H_{26}ClNO_9$

Pathway:
Cell Cycle/DNA Damage

Target:
Topoisomerase

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
SM-5887 (hydrochloride);AMR (hydrochloride)

Observed Molecular Weight:
519.93

Product Description

Amrubicin hydrochloride is a DNA **topoisomerase II** inhibitor, used for the research of cancer.

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IC50 & Target: Topoisomerase II[1]

In Vitro: Amrubicin hydrochloride is a DNA topoisomerase II inhibitor. Amrubicin (2.5 μg/mL) shows radio-enhancement effects on human lung adenocarcinoma A549 cells[1]. Amrubicin supresses the LX-1, A549, A431, and BT-474 cell lines, with IC_{50}s of 1.1 ± 0.2, 2.4 ± 0.8, 0.61 ± 0.10 and 3.0 ± 0.3 μg/mL, respectively[2]. Amrubicin inhibits the cell cycle profile of U937 cells with an IC_{50} of 5.6 μM. Amrubicin (20 μM) also induces apoptosis in U937 cells, activates caspase-3/7 and reduces the mitochondrial membrane potential (Δψm)[3].

In Vivo: Amrubicin (25 mg/kg, i.v.) exhibits significant antitumor activities against both SCLC tumors, Lu-24 and Lu-134, with T/C-values (comparing the mean tumor growth rates of the treated group with those of the control group for each day that the tumors are measured) at day 14 of 17% and 9%, respectively. Amrubicin (25 mg/kg, i.v.) in combination with cisplatin and irinotecan significantly inhibits the growth of tumors compared to amrubicin alone in mice bearing LX-1 tumor cells. Amrubicin alone or combined with tegafur and uracil also suppresses tumor growth in human cancer xenograft models[2].