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

Doxorubicin

Catalog No: tcsc2759

Available Sizes

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Specifications

CAS No:
23214-92-8

Formula:
$C_{27}H_{29}NO_{11}$

Pathway:
Cell Cycle/DNA Damage;Antibody-drug Conjugate/ADC Related;Autophagy;Autophagy

Target:
Topoisomerase;ADC Cytotoxin;Autophagy;Mitophagy

Purity / Grade:
>98%

Solubility:
DMSO: 160.0 mg/mL (275.9 mM)
Water: 50.0 mg/mL (86.2 mM) with warming

Alternative Names:
Adriamycin;Hydroxydaunorubicin

Observed Molecular Weight:
543.52

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

Product Description

Doxorubicin is a cytotoxic anthracycline antibiotic for the treatment of multiple cancers. The possible mechanisms by which doxorubicin acts in the cancer cell are intercalation into DNA and disruption of **topoisomerase-II**-mediated DNA repair.

IC50 & Target: Topoisomerase II[1]

In Vitro: Combination of Doxorubicin and Simvastatin in the highest tested concentrations (2 μM and 10 μM, respec-tively) kills 97% of the Hela cells[2].

In Vivo: Mice bearing PC3 xenografts are injected with 2, 4 or 8 mg/kg Doxorubicin and tumor volume is measured over time. A dose of 2 mg/kg does not affect tumor growth while higher dosages delay tumor growth initially (p[3]. A single intraperitoneal injection 10 mg/kg (Doxorubicin 1) is administered in rats, 10 daily intraperitoneal injections of 1 mg/kg (Doxorubicin 2), or in 5 weekly intraperitoneal injections of 2 mg/kg (Doxorubicin 3). An 80% mortality rate is observed at day 28 in Doxorubicin 1, whereas Doxorubicin 2 and Doxorubicin 3 reached 80% mortality at days 107 and 98, respectively. Fractional shortening decreased by 30% at week 2 in Doxorubicin DOX1, 55% at week 13 in Doxorubicin 2, and 42% at week 13 in Doxorubicin 3[4].