

Valrubicin

Catalog No: tcsc2929



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

56124-62-0

Formula:

$C_{34}H_{36}F_3NO_{13}$

Pathway:

TGF-beta/Smad;Epigenetics

Target:

PKC;PKC

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 130 mg/mL (179.65 mM); H₂O :

Alternative Names:

AD-32

Observed Molecular Weight:

723.64

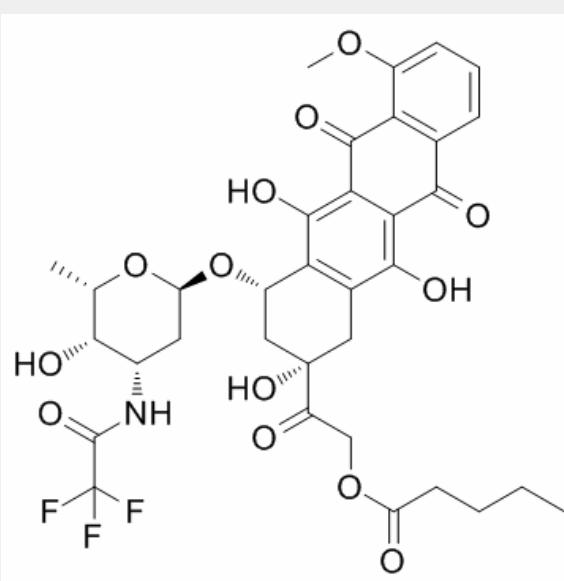
Product Description

Valrubicin is a chemotherapy agent, inhibits TPA- and PDBu-induced **PKC** activation with **IC₅₀**s of 0.85 and 1.25 μM , respectively, and has antitumor and antiinflammatory activity.

IC50 & Target: IC50: 0.85 μM (TPA-activated PKC), 1.25 μM (PDBu-activated PKC)^[1]

In Vitro: Valrubicin (AD 32) is a chemotherapy agent, inhibits TPA- and PDBu-induced PKC activation with IC₅₀s of 0.85 and 1.25 μM , respectively. Valrubicin inhibits the binding of [³H]PDBu to PKC. Therefore, Valrubicin competes with the tumor promoter for the PKC binding site and prevents the latter from both interacting with the phospholipid and binding to PKC^[1]. Valrubicin shows cytotoxic activity against squamous cell carcinoma (SCC) cell line colony formation, with IC₅₀s and IC₉₀s of $8.24 \pm 1.60 \mu\text{M}$ and $14.81 \pm 2.82 \mu\text{M}$ for UMSCC5 cells, $15.90 \pm 0.90 \mu\text{M}$, $29.84 \pm 0.84 \mu\text{M}$ for UMSCC5/CDDP $\pm$ cells, and $10.50 \pm 2.39 \mu\text{M}$, $19.00 \pm 3.91 \mu\text{M}$ for UMSCC10b cells, respectively. Moreover, Valrubicin in combination with radiation enhances the cytotoxicity^[2].

In Vivo: Valrubicin (3, 6, or 9 mg) reduces tumor growth at week 3 by intratumoral jection in hamster. Valrubicin (6 mg) combined with minimally cytotoxic irradiation (150, 250, or 350 cGy) causes significant tumor shrinkage in hamster^[2]. Valrubicin (0.1 $\mu\text{g}/\mu\text{L}$) significantly reduces the number of infiltrating neutrophils in biopsies challenged with TPA at 24 h and attenuates chronic inflammation in mice. Valrubicin also decreases the expression levels of inflammatory cytokines in the acute model^[3].



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