

Daun02

Catalog No: tcsc0464



Available Sizes

Size: 2mg

Size: 5mg

Size: 10mg



Specifications

CAS No:

290304-24-4

Formula:

$C_{41}H_{44}N_2O_{20}$

Pathway:

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

Target:

Topoisomerase;ADC Cytotoxin

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Observed Molecular Weight:

884.79

Product Description

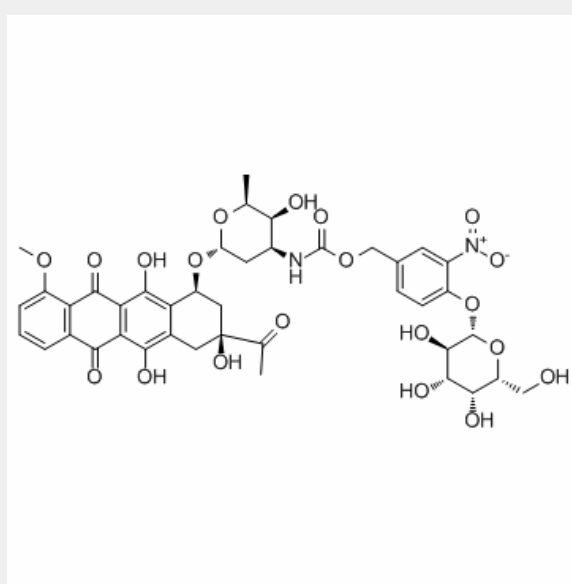
Daun02 is converted by **β-galactosidase** to Daunorubicin, which is a **topoisomerase** inhibitor.

IC50 & Target: Topoisomerase^{[1][2]}

In Vitro:

Daun02 is a prodrug, which is converted by β -galactosidase to Daunorubicin, which has been shown to reduce calcium ion (Ca^{2+})-dependent action potentials in neuroblastoma cells^[1]. Daunorubicin is a topoisomerase inhibitor^[2]. Daun02 is a good substrate for β -galactosidase (β -gal). The concentration of Daun02 producing 50% (EC_{50}) decrease in cell viability is 0.5 μM , 1.5 μM , and 3.5 μM for T47-D, Panc02, and MCF-7, respectively^[3].

In Vivo: Daun02 is a good substrate for β -gal with K_m and V_{\max} values of 0.37 mM and 8.6 $\mu\text{mol}/\text{min}/\text{mg}$ protein. At a concentration of 10^{-5} M, Daun02 is 79% bound to plasma protein compares to 94% for Daunomycin^[3].



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