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

Idarubicin (hydrochloride)

Catalog No: tcsc1061

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
57852-57-0

Formula:
$C_{26}H_{28}ClNO_9$

Pathway:
Cell Cycle/DNA Damage;Autophagy

Target:
Topoisomerase;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (93.64 mM); H2O : 6.67 mg/mL (12.49 mM; Need ultrasonic)

Alternative Names:
4-Demethoxydaunorubicin hydrochloride

Observed Molecular Weight:
533.95

Product Description

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Idarubicin hydrochloride is an anthracycline antibiotic in the treatment of leukaemia and a **DNA topoisomerase II** inhibitor.

IC50 & Target: DNA topoisomerase II[1]

In Vitro: The IC_{50} of idarubicin is 3.3±0.4 ng/mL on MCF-7 monolayers and 7.9±1.1 ng/mL in multicellular spheroids[1]. Idarubicin has shown a greater cytotoxicity than daunorubicin or doxorubicin in various *in vitro* systems. This has been attributed to a better ability of idarubicin to induce the formation of topoisomerase II -mediated DNA breaks[2].Idarubicin is about 57.5-fold and 25-fold more active than doxorubicin and epirubicin, respectively[3]. Idarubicin produces a concentration-dependent reduction in cell growth, with an IC_{50} value of approximately 0.01 μM. Idarubicin produced a concentration-dependent inhibition of DNA synthesis[4].