

Paclitaxel

Catalog No: tcsc1145



Available Sizes

Size: 50mg

Size: 100mg

Size: 500mg

Size: 1g

Size: 2g



Specifications

CAS No:

33069-62-4

Formula:

$C_{47}H_{51}NO_{14}$

Pathway:

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

Target:

Microtubule/Tubulin;Microtubule/Tubulin;ADC Cytotoxin

Form:

White to off-white (Solid)

Purity / Grade:

99.49%

Solubility:

DMSO : 500 mg/mL (585.5 mM)

H2O :

Storage Instruction:

Powder: 4°C for 3 years protect from light In Solvent -80°C for 6 Months; -20°C for 1 month (protect from light)

Alternative Names:

Taxol ; Benzenepropanoic acid, β -(benzoylamino)- α -hydroxy-, (2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)- 6,12b-bis(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11- dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H cyclodeca[3,4]benz[1,2-b]oxet-9-ylester, (α R, β S)-

Observed Molecular Weight:

853.91

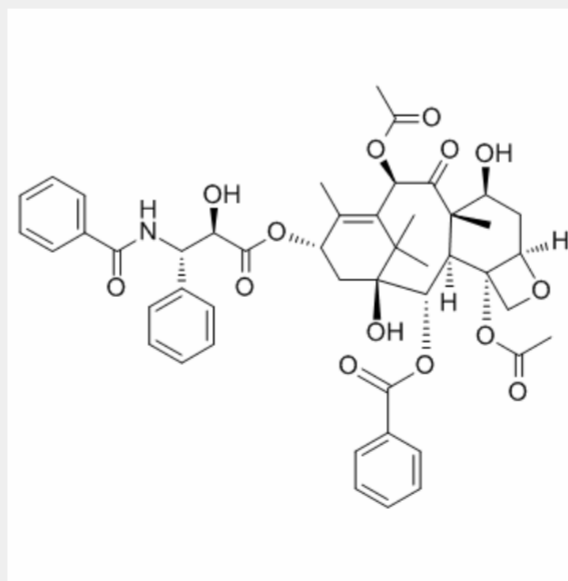
Product Description

Paclitaxel is a potent anticancer medication which can promote **microtubule (MT)** assembly, inhibit MT depolymerization, and change MT dynamics required for mitosis and cell proliferation.

IC50 & Target: IC50: 4 nM (MT)

In Vitro: Paclitaxel at 0.1, 0.5, and 1 μ M reduces the proliferation and survival of CCRF-HSB-2 cells in a dose-dependent fashion and that the IC₅₀ value of taxol is about 0.25 μ M. Paclitaxel directly associates with the endoplasmic reticulum to stimulate the release of calcium into the cytosol, contributing to the induction of apoptosis.

In Vivo: In a SCID mouse xenograft model, low dose metronomic Paclitaxel treatment decreases lung dissemination of EGI-1 cells without significantly affecting their local tumor growth. Low doses of paclitaxel promot liver metastasis in mouse xenografts, which correlates with changes in estrogen metabolism in the host liver. Paclitaxel (2 mg/kg per treatment, black circles) induces mechanical hypersensitivity in the glabrous skin of the hindpaw.



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