10-Deacetyl-7-xylosyl paclitaxel

Cat. No.: HY-20584  
CAS No.: 90332-63-1  
Molecular Formula: C₅₀H₅₇NO₁₇  
Molecular Weight: 943.98  
Target: Microtubule/Tubulin; ADC Cytotoxin  
Pathway: Cell Cycle/DNA Damage; Cytoskeleton; Antibody-drug Conjugate/ADC Related  
Storage: Please store the product under the recommended conditions in the COA.

SOLVENT & SOLUBILITY

In Vitro  
H₂O : < 0.1 mg/mL (insoluble)

BIOLOGICAL ACTIVITY

Description  
10-Deacetyl-7-xylosyl paclitaxel is a Paclitaxel (a microtubule stabilizing agent; enhances tubulin polymerization) derivative with improved pharmacological features. IC₅₀ value: Target: Microtubule inhibitor. 10-Deacetyl-7-xylosyl paclitaxel induced mitotic cell cycle arrest and apoptosis as measured by flow cytometry, DNA laddering, and transmission electron microscopy. Pro-apoptotic Bax and Bad protein expression was up-regulated and anti-apoptotic Bcl-2 and Bcl-XL expression down-regulated, which lead to a disturbance of the mitochondrial membrane permeability and to the activation of caspase-9. In turn, caspase-9 activated downstream caspases-3 and -6, but not caspase-8. Bid was also activated by caspase-3. Reversely, treatment with a caspase-10-specific inhibitor could not protect PC-3 cells from 7-xylosyl-10-deacetyl-paclitaxel-triggered apoptosis. Moreover, 7-xylosyl-10-deacetylpaclitaxel had no effect on the expression of CD95 and NF-kappaB proteins, indicating that apoptosis was induced through the mitochondrial-dependent pathway in PC-3 cells.

IC₅₀ & Target  
Traditional Cytotoxic Agents

REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.

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