

PACLITAXEL AND OTHER ANTI-NEOPLASTIC AGENTS

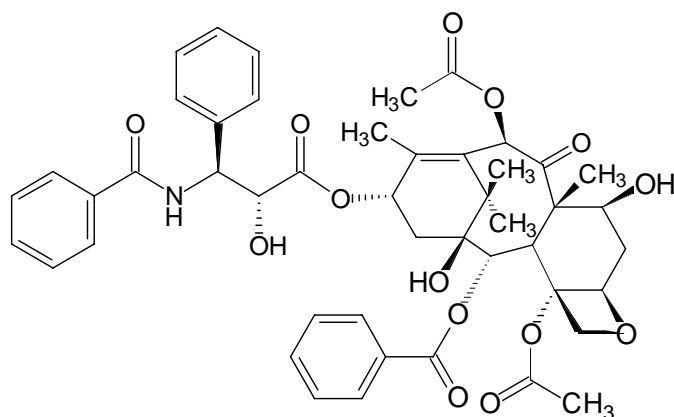
Paclitaxel, a naturally-occurring diterpenoid isolated from the bark of Pacific yew trees, has been found to be an effective agent against ovarian,¹ breast,² and lung cancer.³ Although several cellular actions of Paclitaxel have been reported, the most significant effect appears to be binding to the N-terminal region of β -tubulin and formation of depolymerization-resistant microtubules.⁴ Paclitaxel prevents the microtubule-kinetochore attachment necessary for chromosome segregation, causing blockage of cell cycling at the G2/M stage.⁵ This leads to apoptotic cell death in a variety of cancer cells.^{6,7}

Paclitaxel also stimulates the release of tumor necrosis factor- α (TNF- α) and down-regulates TNF- α receptors.^{8,9} It is reported to inhibit DNA synthesis,¹⁰ and promote interleukin-1 release by macrophages.¹¹ It has been widely used in the elucidation of microtubule and tubulin function in neurons.

CALBIOCHEM[®] offers Paclitaxel and a broad selection of anti-neoplastic agents for your cancer and cytoskeletal research needs. Please contact our Technical Service Department or your local sales office for more information on these products.

Cited References:

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Paclitaxel

Purity: $\geq 97\%$ by HPLC

M.W. 853.9

Cat. No. 580555

5 mg

25 mg

100 mg

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