



# **Certificate of Analysis**

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Catalog No.: 1097 **Product Name: Taxol** Batch No.: 7

33069-62-4 CAS Number:

**IUPAC Name:**  $[2aR-[2a\alpha,4\beta,4a\beta,6\alpha,9\alpha(\alpha R^*,\beta S^*),11\alpha,12\alpha,12a\alpha,12b\alpha]]-\beta-(Benzoylamino)-\alpha-hydroxy-6,12b-bis(acetyloxy)-12-bis(acetylo$ 

(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1*H*-cyclodeca[3,4]benz[1,2-*b*]oxet-9-yl ester benzenepropanoic acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{47}H_{51}NO_{14}$ . 1/4  $H_2O$ **Batch Molecular Formula:** 

**Batch Molecular Weight:** 858.42 **Physical Appearance:** White solid

ethanol to 25 mM Solubility:

DMSO to 100 mM with gentle warming

Store at +4°C Storage:

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

Shows 99.8% purity HPLC: Consistent with structure <sup>1</sup>H NMR: **Mass Spectrum:** Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 65.76 6.05 1.63 Found 65.62 1.73 6.11

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use





# **Product Information**

Print Date: May 9<sup>th</sup> 2013

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(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-

7,11-methano-1*H*-cyclodeca[3,4]benz[1,2-*b*]oxet-9-yl ester benzenepropanoic acid

#### **Description:**

Antitumor agent; promotes and stabilizes tubulin polymerization, causing cell cycle arrest. Induces autocatalytic activation of caspase-10 in CCRF-HSB-2 cells, triggering apoptosis.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>47</sub>H<sub>51</sub>NO<sub>14</sub>. ¼H<sub>2</sub>O

Batch Molecular Weight: 858.42 Physical Appearance: White solid

Minimum Purity: >99%

#### **Batch Molecular Structure:**

Storage: Store at +4°C

#### Solubility & Usage Info:

ethanol to 25 mM

DMSO to 100 mM with gentle warming

#### Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

#### References:

Merck Index 12 7117.

**McGuire** et al (1989) Taxol: a unique antineoplastic agent with significant activity in advanced ovarian epithelial neoplasms. Ann.Intern.Med. **111** 273. PMID: 2569287.

Rowinsky et al (1990) Taxol: a novel investigational antimicrotubule agent. J.Natl.Cancer Inst. 82 1247. PMID: 1973737. Rao et al (1999) Characterization of the taxol binding site on the microtubule. J.Biol.Chem. 274 37990. PMID: 10608867.

Park et al (2004) Taxol induces caspase-10-dependent apoptosis. J.Biol.Chem. 279 51057. PMID: 15452117.