



# **Certificate of Analysis**

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**Product Name: Flutax 1** Catalog No.: 2226 Batch No.: 1

CAS Number: 191930-58-2

**IUPAC Name:** (2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-6,12b-Bis(acetyloxy)-9-[(2R,3S)-3-(benzoylamino)-2-hydroxy-1-

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

oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-alanine

### 1. PHYSICAL AND CHEMICAL PROPERTIES

 $C_{71}H_{66}N_2O_{21}.3H_2O$ **Batch Molecular Formula:** 

**Batch Molecular Weight:** 1337.35 **Physical Appearance:** Orange solid

DMSO to 100 mM Solubility: ethanol to 100 mM

Store at -20°C Storage:

**Batch Molecular Structure:** 

# 2. ANALYTICAL DATA

 $R_f = 0.27$  (Chloroform:Methanol [10:1]) TLC:

HPLC: Shows >99.5% purity Consistent with structure <sup>1</sup>H NMR: **Mass Spectrum:** Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

> Theoretical 63.77 5.43 2.09 Found 63.55 2.08 5.11

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





# **Product Information**

Print Date: Nov 2<sup>nd</sup> 2012

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4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1*H*-cyclodeca[3,4]benz[1,2-*b*]oxet-4-yl ester *N*-[(3',6'-dihydroxy-3-

oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]-L-alanine

#### **Description:**

A fluorescent taxol derivative that binds to the taxol microtubule binding site with high affinity ( $K_a \sim 10^7 M^{-1}$ ). Useful for direct imaging of the microtubule cytoskeleton. Excitation maximum ~ 495 nm: emission maximum ~ 520

# **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>71</sub>H<sub>66</sub>N<sub>2</sub>O<sub>21</sub>.3H<sub>2</sub>O

Batch Molecular Weight: 1337.35 Physical Appearance: Orange solid

Minimum Purity: >98%

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

# Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

#### Solubility & Usage Info:

DMSO to 100 mM ethanol to 100 mM

# 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

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.

#### Other Information:

This product is supplied as a lyophilised solid and may be very hard to visualise. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

## References:

Evangelio et al (1998) Fluorescent taxoids as probes of the microtubule cytoskeleton. Cell Motil.Cytoskel. 39 73.

Diaz et al (2000) Molecular recognition of taxol by microtubules. Kinetics and thermodynamics of binding of fluorescent taxol derivatives to an exposed site. J.Biol.Chem. 275 26265. PMID: 10818101.

Diaz et al (2003) Fast kinetics of taxol binding to microtubules. J.Biol.Chem. 278 8407. PMID: 12496245.