

Certificate of Analysis

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Product Name: Bryostatin 2

Catalog No.: 5237

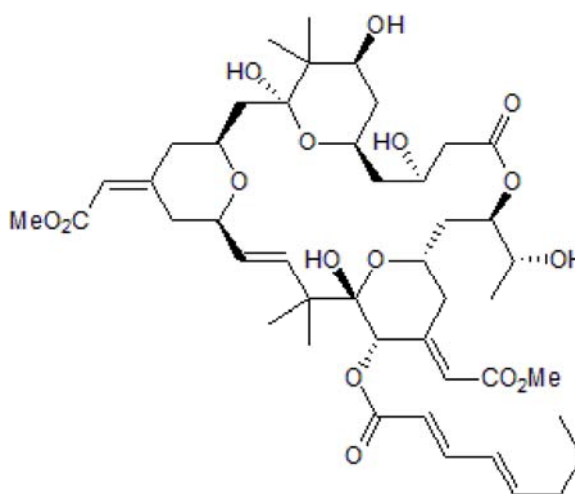
Batch No.: 1

CAS Number: 87745-28-6

IUPAC Name: (1S,3S,5Z,7R,8E,11S,12S,13E,15S,17R,21R,23R,25S)-1,11,21,25-Tetrahydroxy-17-[(1R)-1-hydroxyethyl]-5,13-bis(2-methoxy-2-oxoethylidene)-10,10,26,26-tetramethyl-19-oxo-18,27,28,29-tetraoxatetracyclo[21.3.1.1^{3,7}.1^{11,15}]nonacos-8-en-12-yl-(2E,4E)-2,4-octadienoic acid ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₄₅ H ₆₆ O ₁₆
Batch Molecular Weight:	863
Physical Appearance:	White lyophilised solid
Solubility:	Soluble in ethanol
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 100% purity
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Protein kinase C (PKC) activator; analog of Bryostatin 1 (Cat. No. 2383). Attenuates cell proliferation and cell attachment in U937 cells. Inhibits DNA synthesis at 100 nM in SH-SY5Y human neuroblastoma cells. Also inhibits EGF binding and induces arachidonic acid release in vitro. Antitumor.

Physical and Chemical Properties:

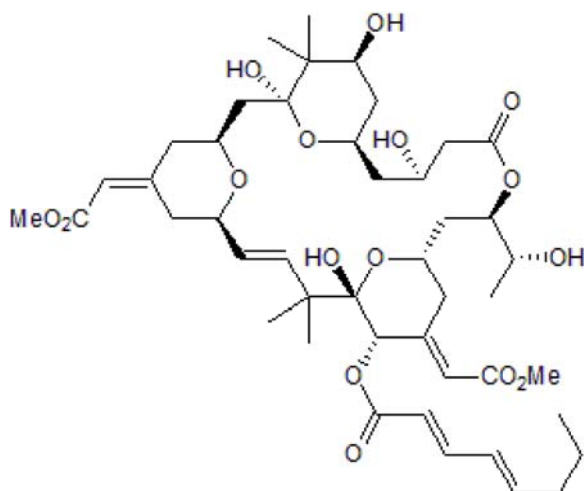
Batch Molecular Formula: C₄₅H₆₆O₁₆

Batch Molecular Weight: 863

Physical Appearance: White lyophilised 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:

Soluble in ethanol

This product is supplied as a lyophilized solid and may be very hard to visualize. 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.

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:

Kedei et al (2013) Comparison of transcriptional response to phorbol ester, bryostatin 1, and bryostatin analogs in LNCaP and U937 cancer cell lines provides insight into their differential mechanism of action. *Biochem Pharmacol.* **85** 313. PMID: 23146662.

Jalava et al (1990) Effects of bryostatins 1 and 2 on morphological and functional differentiation of SH-SY5Y human neuroblastoma cells. *Cancer Res.* **50** 3422. PMID: 2334938.

Dale et al (1989) Comparison of effects of bryostatins 1 and 2 and 12-O-tetradecanoylphorbol-13-acetate on protein kinase C activity in A549 human lung carcinoma cells. *Cancer Res.* **49** 3242. PMID: 2720677.

Dell'Aquila et al (1988) Differential effects of bryostatins and phorbol esters on arachidonic acid metabolite release and epidermal growth factor binding in C3H 10T1/2 cells. *Cancer Res.* **48** 3702. PMID: 3132318.

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