

**Product Name:** Calphostin C

**Catalog No.:** 1626

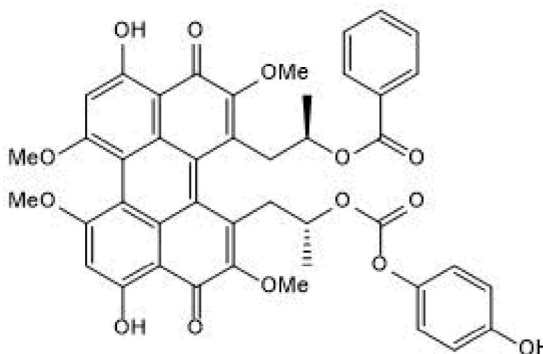
**Batch No.:** 10

CAS Number: 121263-19-2

IUPAC Name: (1*R*)-2-[12-[(2*R*)-2-(Benzoyloxy)propyl]-3,10-dihydro-4,9-dihydroxy-2,6,7,11-tetramethoxy-3,10-dioxo-1-perylenyl]-1-methylethylcarbonic acid 4-hydroxyphenyl ester

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>44</sub> H <sub>38</sub> O <sub>14</sub>
<b>Batch Molecular Weight:</b>	790.76
<b>Physical Appearance:</b>	Dark red solid
<b>Solubility:</b>	Soluble in DMSO Soluble in ethanol
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 99.9% purity
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Calphostin C is a potent, selective and photo-dependent inhibitor of protein kinase C that targets the regulatory domain (IC<sub>50</sub> = 50 nM). Displays > 1000-fold selectivity over other protein kinases such as cAMP-dependent protein kinase and tyrosine-specific protein kinase. Inhibits cell proliferation of malignant glioma cells in light-treated conditions *in vitro* (IC<sub>50</sub> ~ 40 - 60 nM). Also an antagonist of the Tcf/β-catenin complex.

**Physical and Chemical Properties:**

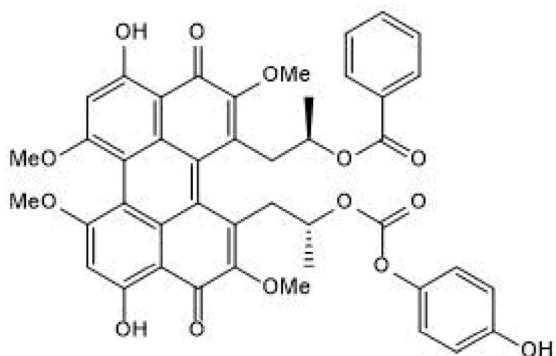
Batch Molecular Formula: C<sub>44</sub>H<sub>38</sub>O<sub>14</sub>

Batch Molecular Weight: 790.76

Physical Appearance: Dark red solid

**Minimum Purity:** ≥95%

**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 DMSO

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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Matsuzaki and Darcha** (2013) *In vitro* effects of a small-molecule antagonist of the Tcf/β-catenin complex on endometrial and endometriotic cells of patients with endometriosis. *PLoS One* **8** e61690. PMID: 23626717.

**Au et al** (2006) Differential effects of photofrin, 5-aminolevulinic acid and calphostin C on glioma cells. *J.Photochem.Photobiol.B.* **85** 92. PMID: 16829117.

**Pollack and Kawecki** (1997) The effect of calphostin C, a potent photodependent protein kinase C inhibitor, on the proliferation of glioma cells *in vitro*. *J.Neurooncol.* **31** 255. PMID: 9049854.

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