

**Product Name:** Calphostin C

**Catalog No.:** 1626

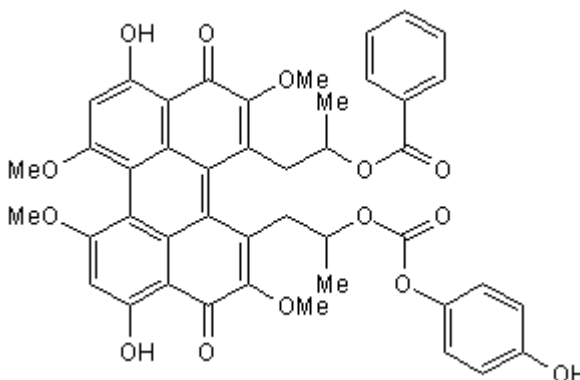
**Batch No.:** 4

**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>	Desiccate at +4°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows >98% purity
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Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

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:**

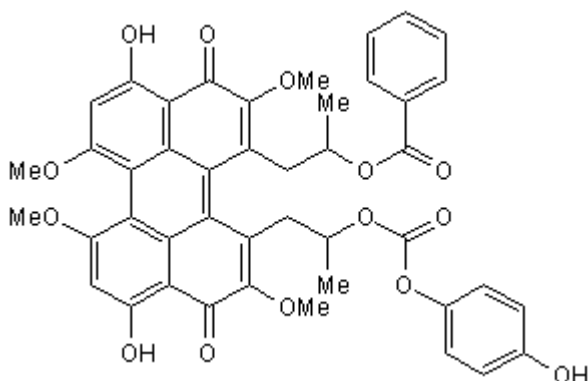
Batch Molecular Formula: C<sub>44</sub>H<sub>38</sub>O<sub>14</sub>

Batch Molecular Weight: 790.76

Physical Appearance: Dark red solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**References:**

**Kobayashi et al** (1989) Calphostin C (UCN-1028C), a novel microbial compound, is a highly potent and specific inhibitor of protein kinase C. *Biochem.Biophys.Res.Comm.* **159** 548.

**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.

**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.

**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.

**Storage:** Desiccate at +4°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

**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.

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