Product Name: Piperlongumine
Catalog No.: 4396
Batch No.: 1
CAS Number: 20069-09-4
IUPAC Name: 5,6-Dihydro-1-[(2E)-1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propen-1-yl]-2(1H)-pyridinone

1. PHYSICAL AND CHEMICAL PROPERTIES

- Batch Molecular Formula: \( \text{C}_{17}\text{H}_{19}\text{NO}_{5} \)
- Batch Molecular Weight: 317.34
- Physical Appearance: White solid
- Solubility: DMSO to 100 mM, ethanol to 20 mM with gentle warming
- Storage: Store at -20°C
- Batch Molecular Structure:

![Molecular Structure](image)

2. ANALYTICAL DATA

- Melting Point: Between 124 - 126°C
- HPLC: Shows 97.8% purity
- \(^1\)H NMR: Consistent with structure
- Mass Spectrum: Consistent with structure
- Microanalysis:
  - Carbon: Theoretical 64.34, Found 64.29
  - Hydrogen: Theoretical 6.04, Found 5.86
  - Nitrogen: Theoretical 4.41, Found 4.42

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

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**Product Information**

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**Catalog No.:** 4396  
**Batch No.:** 1  
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**Description:**
Induces cell death and increases the level of reactive oxygen species (ROS) in cancer cells with both wild-type and normal p53. Also inhibits the growth of spontaneous malignant breast tumors in mice. Displays little effect on normal cells. Rapidly depletes androgen receptor expression in human prostate cancer cells via a ROS-dependent, proteasome-mediated mechanism.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{17}H_{16}NO_{5}
- **Batch Molecular Weight:** 317.34
- **Physical Appearance:** White solid
- **Minimum Purity:** >97%

**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 20 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:**