Product Name: Gliotoxin
Catalog No.: 2637
Batch No.: 3

CAS Number: 67-99-2
IUPAC Name: \((3R,5aS,6S,10aR)-2,3,5a,6-Tetrahydro-6-hydroxy-3-(hydroxymethyl)-2-methyl-10H-3,10a-epidithiopyrazino[1,2-a]indole-1,4-dione\)

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: \(C_{13}H_{14}N_{2}O_{4}S_{2}\)
   Batch Molecular Weight: 326.38
   Physical Appearance: White lyophilised solid
   Solubility: Soluble in DMSO, Soluble in ethanol
   Storage: Desiccate at -20°C

2. ANALYTICAL DATA

   Melting Point: At 204°C
   HPLC: Shows 99% purity
**Product Name:** Gliotoxin  
**Catalog No.:** 2637  
**Batch No.:** 3

**CAS Number:** 67-99-2  
**IUPAC Name:** (3R,5aS,6S,10aR)-2,3,5a,6-Tetrahydro-6-hydroxy-3-(hydroxymethyl)-2-methyl-10H-3,10a-epidithiopyrazino[1,2-a]indole-1,4-dione

**Description:**  
Immunosuppressive agent; blocks phagocytosis, cytokine production and proliferation of T and B cells. Non-competitively inhibits chymotrypsin-like activity of 20S proteasome; prevents degradation of IκBα, an endogenous blocker of NF-κB. Inhibits leukotriene B₄ (LTB₄) biosynthesis via inhibition of LTA₄ hydrolase. Also inhibits farnesyltransferase and geranylgeranyltransferase I (IC₅₀ values are 80 and 17 μM respectively) and displays antitumor activity against breast cancer in vivo.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C₁₅H₁₄N₂O₄S₂  
- **Batch Molecular Weight:** 326.38  
- **Physical Appearance:** White lyophilised solid

**Batch Molecular Structure:**

![Molecular Structure](image)

**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.

**Storage:** Desiccate at -20°C

**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:**