

**Product Name:** SB 415286

**Catalog No.:** 1617

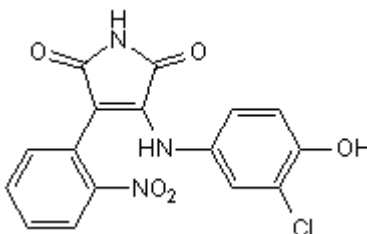
**Batch No.:** 4

**CAS Number:** 264218-23-7

**IUPAC Name:** 3-[(3-Chloro-4-hydroxyphenyl)amino]-4-(2-nitrophenyl)-1*H*-pyrrole-2,5-dione

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>10</sub>ClN<sub>3</sub>O<sub>5</sub>  
**Batch Molecular Weight:** 359.73  
**Physical Appearance:** yellow powder  
**Solubility:** ethanol to 25 mM  
DMSO to 50 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.33 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows >99.1% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	53.42	2.8	11.68
Found	53.11	2.78	11.56

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

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**IUPAC Name:** 3-[(3-Chloro-4-hydroxyphenyl)amino]-4-(2-nitrophenyl)-1H-pyrrole-2,5-dione

**Description:**

Potent and selective glycogen synthase kinase-3 (GSK-3) inhibitor ( $K_i = 31$  nM for GSK-3 $\alpha$ ); competes with ATP. Has minimal activity against 24 other protein kinases ( $IC_{50} > 10$   $\mu$  M). Stimulates glycogen synthesis, gene transcription and is neuroprotective.

**Physical and Chemical Properties:**

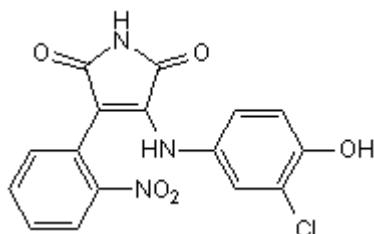
Batch Molecular Formula: C<sub>16</sub>H<sub>10</sub>ClN<sub>3</sub>O<sub>5</sub>

Batch Molecular Weight: 359.73

Physical Appearance: yellow powder

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

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:**

ethanol to 25 mM

DMSO to 50 mM

**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:**

**Coghlan et al** (2000) Selective small molecule inhibitors of glycogen synthase kinase-3 modulate glycogen metabolism and gene transcription. *Chem.Biol.* **7** 793. PMID: 11033082.

**Cross et al** (2001) Selective small-molecule inhibitors of glycogen synthase kinase-3 activity protect primary neurones from death. *J.Neurochem.* **77** 94. PMID: 11279265.

**Liang and Chuang** (2006) Regulation and function of glycogen synthase kinase-3 isoforms in neuronal survival. *J.Biol.Chem.* **282** 3904. PMID: 17148450.

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