

Product Name: SB 415286

Catalog No.: 1617

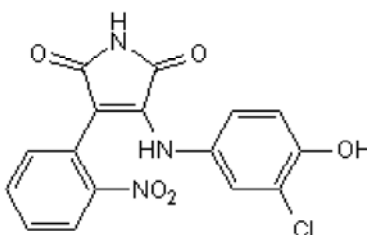
Batch No.: 4

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: C₁₆H₁₀ClN₃O₅
Batch Molecular Weight: 359.73
Physical Appearance: Yellow solid
Solubility: ethanol to 25 mM
 DMSO to 50 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.33 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.1% purity
¹H 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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Description:

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

Physical and Chemical Properties:

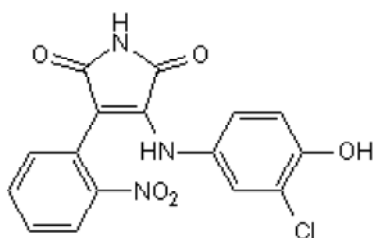
Batch Molecular Formula: C₁₆H₁₀ClN₃O₅

Batch Molecular Weight: 359.73

Physical Appearance: Yellow solid

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.

Licensing Information:

Sold for research purposes under agreement from GlaxoSmithKline

References:

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

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.

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.

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