

Certificate of Analysis

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Product Name: PIT 1

Catalog No.: 4168

Batch No.: 1

CAS Number: 53501-41-0

IUPAC Name: *N*-[[[(3-Chloro-2-hydroxy-5-nitrophenyl)amino]thioxomethyl]benzamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₀ClN₃O₄S

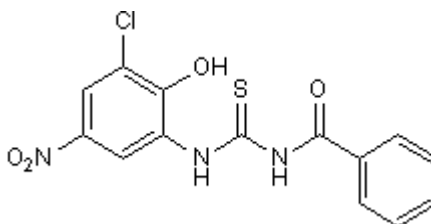
Batch Molecular Weight: 351.76

Physical Appearance: Grey solid

Solubility: DMSO to 75 mM
ethanol to 10 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 47.8 2.87 11.95

Found 47.87 2.86 11.89

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

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Description:

Selective PIP₃ antagonist. Blocks the binding of PIP₃ to the pleckstrin homology (PH) domain of Akt (IC₅₀ = 31.03 μM). Inhibits cancer cell survival and induces apoptosis by inhibition of PIP₃-dependent PI 3-kinase/Akt signaling. Exhibits antitumor activity in vivo.

Physical and Chemical Properties:

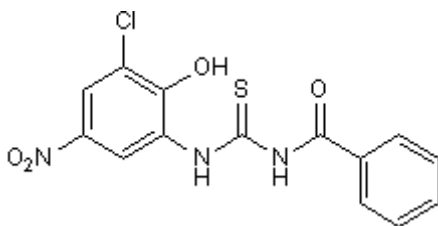
Batch Molecular Formula: C₁₄H₁₀ClN₃O₄S

Batch Molecular Weight: 351.76

Physical Appearance: Grey solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 75 mM

ethanol to 10 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:

Miao *et al* (2010) Small molecule inhibition of phosphatidylinositol-3,4,5-triphosphate (PIP₃) binding to pleckstrin homology domains. *Proc.Natl.Acad.Sci.* **107** 2012.

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