

Certificate of Analysis

Product Name: NSC 625987

Catalog No.: 2152

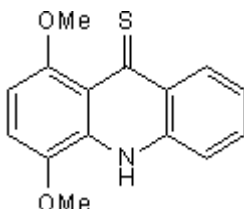
Batch No.: 2

CAS Number: 141992-47-4

IUPAC Name: 1,4-Dimethoxy-9(10*H*)-acridinethione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₃NO₂S
Batch Molecular Weight: 271.33
Physical Appearance: Brown solid
Solubility: ethanol to 10 mM
DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.8 (Dichloromethane:Methanol [20:1])
Melting Point: Between 208 - 209°C
HPLC: Shows >98.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.4	4.83	5.16
Found	66.41	4.84	5.23

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

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Description:

Cyclin-dependent kinase (cdk) 4 inhibitor (IC_{50} = 0.2 μ M at cdk4/cyclin D1). Displays > 500-fold selectivity over cdk2 (IC_{50} > 100 μ M for cdc2/cyclin A, cdk2/cyclin A and cdk2/cyclin E).

Physical and Chemical Properties:

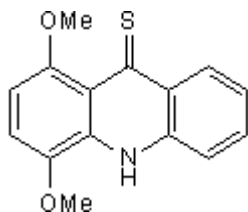
Batch Molecular Formula: C₁₅H₁₃NO₂S

Batch Molecular Weight: 271.33

Physical Appearance: Brown solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

ethanol to 10 mM
DMSO to 100 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:

Kubo *et al* (1999) The p16 status of tumor cell lines identifies small molecule inhibitors specific for cyclin-dependent kinase 4. *Clin.Cancer Res.* **5** 4279. PMID: 10632371.

McInnes *et al* (2004) Structural determinants of CDK4 inhibition and design of selective ATP competitive inhibitors. *Chem.Biol.* **11** 525. PMID: 15123247.

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