

## Certificate of Analysis

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**Product Name:** K 858

**Catalog No.:** 3703

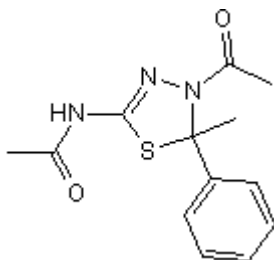
**Batch No.:** 1

CAS Number: 72926-24-0

IUPAC Name: *N*-(4-Acetyl-4,5-dihydro-5-methyl-5-phenyl-1,3,4-thiadiazol-2-yl)acetamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>13</sub>H<sub>15</sub>N<sub>3</sub>O<sub>2</sub>S  
**Batch Molecular Weight:** 277.34  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 10 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	56.3	5.45	15.15
Found	56.29	5.6	15.07

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

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**Description:**

Selective ATP-uncompetitive mitotic kinesin Eg5 inhibitor ( $IC_{50}$  = 1.3  $\mu$ M). Induces mitotic arrest, caspase-3 activation and cell growth inhibition in HCT116 cells. Displays no effect on microtubule dynamics. Preferentially induces mitotic arrest in cancer cells.

**Physical and Chemical Properties:**

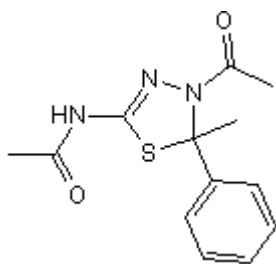
Batch Molecular Formula:  $C_{13}H_{15}N_3O_2S$

Batch Molecular Weight: 277.34

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Nakai et al** (2009) K858, a novel inhibitor of mitotic kinesin Eg5 and antitumor agent, induces cell death in cancer cells. *Cancer Res.* **69** 3901. PMID: 19351824.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 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.

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