

Certificate of Analysis

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Product Name: LH 846

Catalog No.: 4896

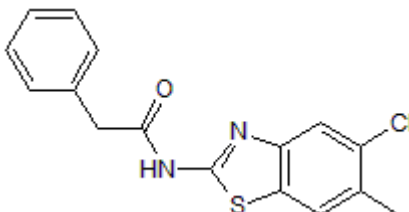
Batch No.: 1

CAS Number: 639052-78-1

IUPAC Name: *N*-(5-Chloro-6-methyl-2-benzothiazolyl)benzeneacetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₃ClN₂OS
Batch Molecular Weight: 316.81
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 5 mM with gentle warming
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.66	4.14	8.84
Found	60.7	4.12	8.7

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

Product Information

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IUPAC Name: *N*-(5-Chloro-6-methyl-2-benzothiazolyl)benzeneacetamide

Description:

Selective inhibitor of casein kinase (CK) 1δ (IC₅₀ values are 290 nM, 1.3 μM and 2.5 μM for CK1δ, ε and α); displays no inhibitory activity at CK2. Inhibits CK1δ-dependent phosphorylation and degradation of PER1 protein. Shown to lengthen the circadian period in U2OS cells, with minimal effect on amplitude.

Physical and Chemical Properties:

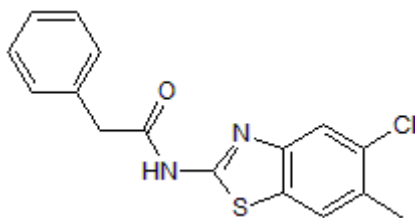
Batch Molecular Formula: C₁₆H₁₃ClN₂OS

Batch Molecular Weight: 316.81

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 5 mM with gentle warming

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:

Lee et al (2011) A small molecule modulates circadian rhythms through phosphorylation of the period protein. *Agnew Chem.Int.Ed.Engl.* **50** 10608. PMID: 21954091.

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