

Certificate of Analysis

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Product Name: TG 003

Catalog No.: 4336

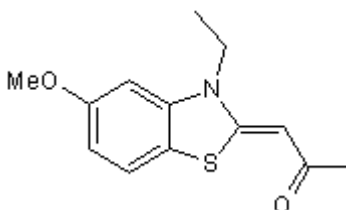
Batch No.: 2

CAS Number: 719277-26-6

IUPAC Name: (1Z)-1-(3-Ethyl-5-methoxy-2(3H)-benzothiazolidene)-2-propanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₅NO₂S
Batch Molecular Weight: 249.33
Physical Appearance: Pale yellow solid
Solubility: DMSO to 100 mM
ethanol to 75 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Dichloromethane:Ethyl acetate [4:1])
HPLC: Shows >99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 62.62 | 6.06 | 5.62 |
| Found | 62.65 | 6.02 | 5.59 |

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

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Description:

Potent, ATP-competitive inhibitor of Clk-family kinases (IC₅₀ values are 15, 20 and 200 nM for mClk4, 1 and 2 respectively and >10 μM for mClk3). Also inhibits DYRK1A/B (IC₅₀ values are 24 and 34 nM respectively). Suppresses serine/arginine-rich protein phosphorylation; affects the regulation of alternative splicing by phosphorylation of SR protein both in vitro and in vivo.

Physical and Chemical Properties:

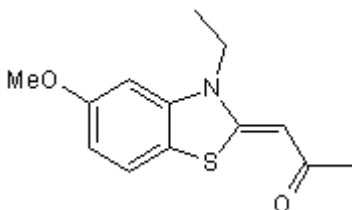
Batch Molecular Formula: C₁₃H₁₅NO₂S

Batch Molecular Weight: 249.33

Physical Appearance: Pale yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Foucourt et al (2014) Design and synthesis of thiazolo[5,4-f]quinazolines as DYRK1A inhibitors, part II. *Molecules* **19** 15411. PMID: 25264830.

Muraki et al (2004) Manipulation of alternative splicing by a newly developed inhibitor of Clks. *J.Biol.Chem.* **279** 24246. PMID: 15010457.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 75 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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