

Certificate of Analysis

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Product Name: PCNA I1

Catalog No.: 5419

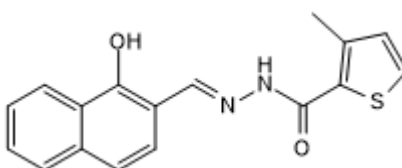
Batch No.: 1

CAS Number: 444930-42-1

IUPAC Name: *N*-(3-Methylthiophene-2-carboxylic acid)-*N*-[(1-hydroxy-2-naphthalenyl)methylene]hydrazide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₄N₂O₂S
Batch Molecular Weight: 310.37
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.51 (Dichloromethane:Methanol [99:1])
HPLC: Shows >99.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	65.79	4.55	9.03
Found	66.1	4.56	8.88

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

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Description:

Proliferating cell nuclear antigen (PCNA) inhibitor. Directly binds PCNA trimers ($K_d = 0.41 \mu\text{M}$), reduces chromatin-associated PCNA in cells, inhibits cell growth through induction of S and G₂M arrest, and attenuates DNA replication in cells. Inhibits growth of a range of tumor cell lines in vitro with IC₅₀ values in the nanomolar to low micromolar range. Inhibits growth of prostate tumor xenografts in mice.

Physical and Chemical Properties:

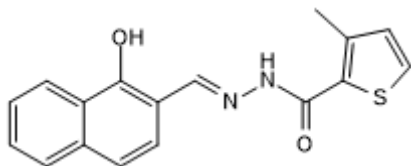
Batch Molecular Formula: C₁₇H₁₄N₂O₂S

Batch Molecular Weight: 310.37

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Dillehay et al (2014) Antitumor effects of a novel small molecule targeting PCNA chromatin association in prostate cancer. *Mol.Cancer Ther.* **13** 2817. PMID: 25253786.

Tan et al (2012) Small-molecule targeting of proliferating cell nuclear antigen chromatin association inhibits tumor cell growth. *Mol.Pharmacol.* **81** 811. PMID: 22399488.

Storage: Store at +4°C

Solubility & Usage Info:

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.

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