

Certificate of Analysis

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Product Name: 3-AP

Catalog No.: 5962

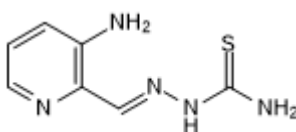
Batch No.: 1

CAS Number: 143621-35-6

IUPAC Name: 2-[(3-Amino-2-pyridinyl)methylene]hydrazinecarbothioamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₉N₅S
Batch Molecular Weight: 195.24
Physical Appearance: Beige solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	43.06	4.65	35.87
Found	43.03	4.68	35.89

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

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IUPAC Name: 2-[(3-Amino-2-pyridinyl)methylene]hydrazinecarbothioamide

Description:

Ribonucleotide reductase inhibitor. Also an iron chelator. Inhibits leukemia cell growth and acts in synergy with cisplatin (Cat. No.2251). Active in vivo.

Physical and Chemical Properties:

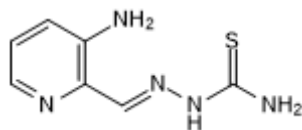
Batch Molecular Formula: C₇H₉N₅S

Batch Molecular Weight: 195.24

Physical Appearance: Beige solid

Minimum Purity: >98%

Batch Molecular Structure:



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.

References:

Arid *et al* (2015) Nucleotide metabolism, oncogene-induced senescence and cancer. *Cancer Letters* **356** 204. PMID: 24486217.

Finch *et al* (1999) Triapine (3-aminopyridine-2-carboxaldehyde thiosemicarbazone; 3-AP): an inhibitor of ribonucleotide reductase with antineoplastic activity. *Adv.Enzyme Regul.* **39** 3. PMID: 10470363.

Liu *et al* (1992) Synthesis and antitumor activity of amino derivatives of pyridine-2-carboxaldehyde thiosemicarbazone. *J.Med.Chem.* **35** 3672. PMID: 1433178.

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