

Product Name: API-2

Catalog No.: 2151

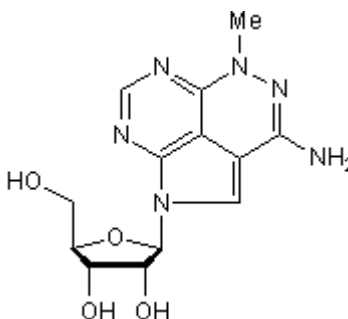
Batch No.: 3

CAS Number: 35943-35-2

IUPAC Name: 1,5-Dihydro-5-methyl-1-β-D-ribofuranosyl-1,4,5,6,8-pentaazaacenaphthylen-3-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₆N₆O₄·¾H₂O
Batch Molecular Weight: 333.82
Physical Appearance: Off-white solid
Solubility: 1eq. HCl to 100 mM
 DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.5 (Dichloromethane:Methanol:Ammonia soln. [50:45:5])
HPLC: Shows 100% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	46.77	5.28	25.18
Found	46.98	5.05	25.33

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

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Description:

Selective inhibitor of Akt (protein kinase B) signaling; displays minimal inhibition of PKC, PKA, SGK and p38 pathways. Inhibits phosphorylation and activation of downstream targets of Akt including Bad, GSK-3β and AFX. Induces apoptosis and growth arrest in vitro, preferentially in human cancer cells with elevated levels of Akt. Potently and selectively inhibits growth of Akt-overexpressing tumors in mice. Inhibits DNA synthesis and displays antiviral activity against HIV-1 and -2.

Physical and Chemical Properties:

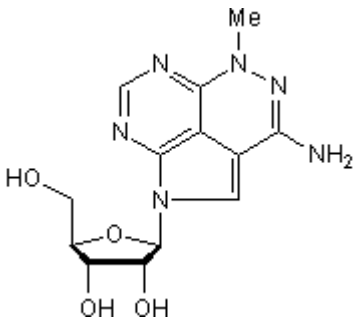
Batch Molecular Formula: C₁₃H₁₆N₆O₄·¾H₂O

Batch Molecular Weight: 333.82

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

1eq. HCl to 100 mM

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:

Wotring et al (1990) Dual mechanisms of inhibition of DNA synthesis by tricyridine. *Cancer Res.* **50** 4891. PMID: 2379153.

Ptak et al (1998) Phosphorylation of tricyridine is necessary for activity against HIV type 1. *AIDS Res.Hum.Retroviruses.* **14** 1315. PMID: 9788672.

Yang et al (2004) Akt/protein kinase B signaling inhibitor-2, a selective small molecule inhibitor of Akt signaling with antitumour activity in cancer cells overexpressing Akt. *Cancer Res.* **64** 4394. PMID: 15231645.

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