

Certificate of Analysis

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Product Name: NNMTi

Catalog No.: 6900

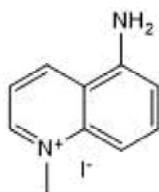
Batch No.: 1

CAS Number: 42464-96-0

IUPAC Name: 5-Amino-1-methylquinolinium iodide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₁IN₂·½H₂O
Batch Molecular Weight: 295.12
Physical Appearance: Brown solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity
¹H NMR: consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	40.7	4.1	9.49
Found	40.8	4.03	9.38

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

Product Name: NNMTi

Catalog No.: 6900

Batch No.: 1

CAS Number: 42464-96-0

IUPAC Name: 5-Amino-1-methylquinolinium iodide

Description:

Nicotinamide N-methyltransferase (NNMT) inhibitor (IC₅₀ = 1.2 μM). Promotes myoblast differentiation in C2C12 cells. Activates senescent muscle stem cells (muSCs) and improves regenerative capacity of aged skeletal muscle. Enhances proliferation, fusion and regenerative capacity of muSCs in aged mice.

Physical and Chemical Properties:

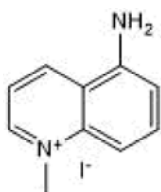
Batch Molecular Formula: C₁₀H₁₁IN₂·½H₂O

Batch Molecular Weight: 295.12

Physical Appearance: Brown solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Neelakantan et al (2019) Small molecule nicotinamide N-methyltransferase inhibitor activates senescent muscle stem cells and improves regenerative capacity of aged skeletal muscle. *Biochem. Pharmacol.* **163** 481. PMID: 30753815.

Neelakantan et al (2017) Structure-activity relationship for small molecule inhibitors of nicotinamide N-methyltransferase. *J. Med. Chem.* **60** 5015. PMID: 28548833.

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

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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