

Certificate of Analysis

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Product Name: 4-Aminopyridine

Catalog No.: 0940

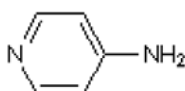
Batch No.: 4

CAS Number: 504-24-5

EC Number: 207-987-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₅H₆N₂
Batch Molecular Weight: 94.12
Physical Appearance: White crystalline solid
Solubility: DMSO to 100 mM
water to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99.9% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.81	6.43	29.75
Found	63.79	6.46	29.93

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

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CAS Number: 504-24-5

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Description:

Non-selective voltage-dependent K⁺-channel blocker (IC₅₀ values are 170 and 230 μM at K_v1.1 and K_v1.2 respectively). Caged 4-AP (Cat. No. 3557) is also available.

Physical and Chemical Properties:

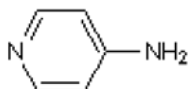
Batch Molecular Formula: C₅H₆N₂

Batch Molecular Weight: 94.12

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM

water 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:

Smith *et al* (2009) In vitro electrophysiological activity of nerispiridine, a novel 4-aminopyridine derivative. *Clin.Exp.Pharmacol.Physiol.* **36** 1104. PMID: 19413590.

Tseng (1999) Different state dependencies of 4-aminopyridine binding to rKv1.4 and rKv4.2: role of the cytoplasmic halves of the fifth and sixth transmembrane segments. *J.Pharmacol.Exp.Ther.* **290** 569. PMID: 10411564.

Tseng *et al* (1996) Reverse use dependence of Kv4.2 blockade by 4-aminopyridine. *J.Pharmacol.Exp.Ther.* **279** 865. PMID: 8930194.

Bouchard and Fedida (1995) Closed and open state binding of 4-aminopyridine to the cloned human potassium channel Kv1.5. *J.Pharmacol.Exp.Ther.* **275** 864. PMID: 7473178.

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