

# Certificate of Analysis

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**Product Name:** 4-Aminopyridine

**Catalog No.:** 0940

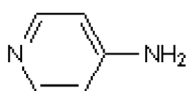
**Batch No.:** 5

CAS Number: 504-24-5

EC Number: 207-987-9

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>5</sub>H<sub>6</sub>N<sub>2</sub>  
**Batch Molecular Weight:** 94.12  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
 water to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 100.0 % purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	63.81	6.43	29.77
Found	63.31	6.44	29.57

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

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## Product Information

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**Product Name:** 4-Aminopyridine

**Catalog No.:** 0940

**Batch No.:** 5

CAS Number: 504-24-5

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### Description:

4-Aminopyridine is a non-selective voltage-dependent K<sup>+</sup>-channel blocker (IC<sub>50</sub> values are 170 and 230 μM at K<sub>v</sub>1.1 and K<sub>v</sub>1.2 respectively). Caged 4-AP (Cat. No. 3557) is also available.

### Physical and Chemical Properties:

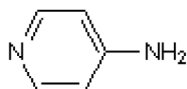
Batch Molecular Formula: C<sub>5</sub>H<sub>6</sub>N<sub>2</sub>

Batch Molecular Weight: 94.12

Physical Appearance: White solid

**Minimum Purity:** ≥98%

### 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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.

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