

Certificate of Analysis

Product Name: RuBi-4AP

Catalog No.: 3557

Batch No.: 2

CAS Number: 851956-02-0

IUPAC Name: *bis(2,2'-Bipyridine-N,N')bis(4-aminopyridine-N¹) ruthenium(2+) dichloride complex*

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₂₈Cl₂N₈Ru

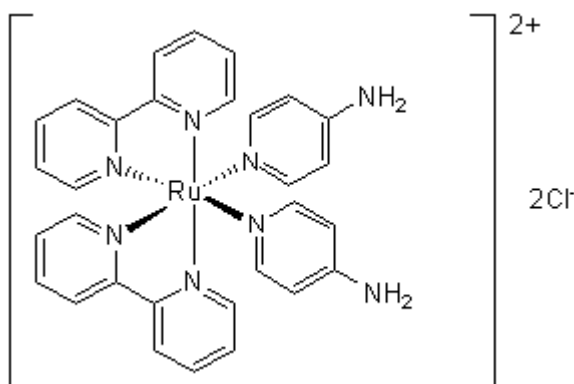
Batch Molecular Weight: 672.58

Physical Appearance: Red solid

Solubility: water to 30 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

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

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Description:

Water soluble ruthenium-bipyridine-triphenylphosphine caged 4-aminopyridine (4-AP). Excited by visible wavelengths and has two-photon uncaging capabilities under physiological conditions. Releases 4-AP (Cat. No. 0940), a voltage-dependent K⁺ channel blocker.

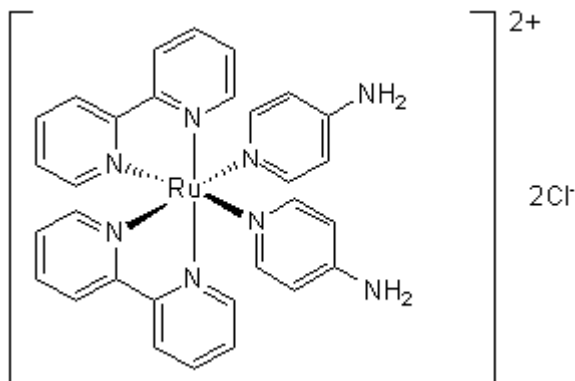
Physical and Chemical Properties:

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Batch Molecular Weight: 672.58

Physical Appearance: Red solid

Batch Molecular Structure:



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:

water to 30 mM

CAUTION: Ru4AP is light sensitive and all experiments should be conducted with minimal light.

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:

Zayat *et al* (2003) A new strategy for neurochemical photodelivery: Metal-ligand heterolytic cleavage. *J.Am.Chem.Soc.* **125** 882. PMID: 12537482.

Nikolenko *et al* (2005) Two-photon uncaging of neurochemicals using inorganic metal complexes. *Chem.Commun.* **13** 1752.

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