

**Product Name:** RuBi-Nicotine

**Catalog No.:** 3855

**Batch No.:** 2

CAS Number: 1256362-30-7

IUPAC Name: *Bis(2,2'-bipyridine-N,N')bis(S-nicotine-N1) ruthenium(2<sup>+</sup>) dichloride*

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>40</sub>H<sub>44</sub>Cl<sub>2</sub>N<sub>8</sub>Ru

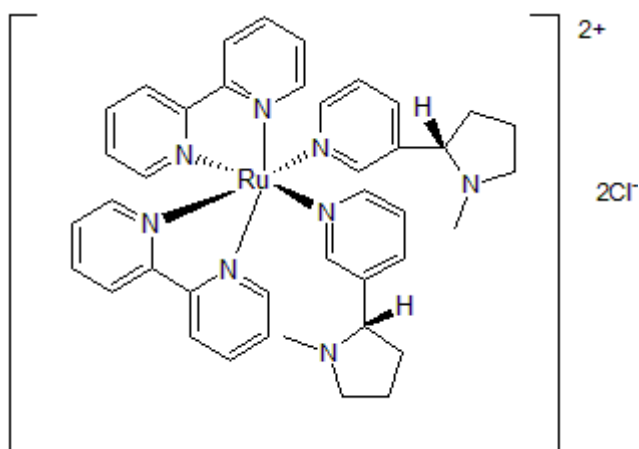
**Batch Molecular Weight:** 808.81

**Physical Appearance:** Orange solid

**Solubility:** water to 50 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**<sup>1</sup>H NMR:** Consistent with structure

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

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**Description:**

Ruthenium-bisbipyridine-caged nicotine, excitable by irradiation with visible light. Undergoes rapid photolysis to release nicotine (< 20 ns); exhibits a high quantum yield. Induces action potential propagation in Retzius neurons of leech ganglia with no detectable toxicity at a concentration of 1 mM.

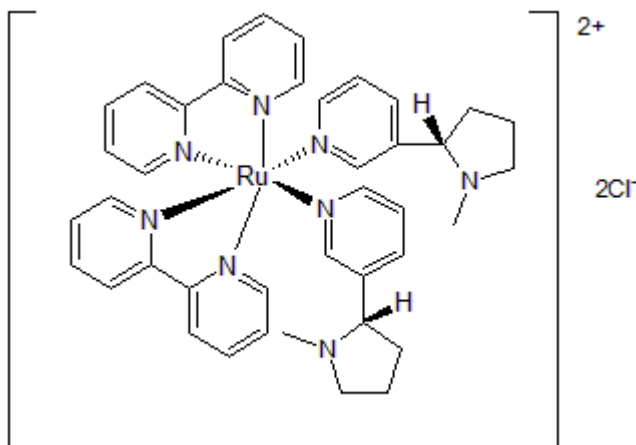
**Physical and Chemical Properties:**

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Batch Molecular Weight: 808.81

Physical Appearance: Orange 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 50 mM

CAUTION: RuBi-Nicotine 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:**

**Filevich et al** (2010) A caged nicotine with nanosecond range kinetics and visible light sensitivity. *J.Inorg.Biochem.* **104** 1248. PMID: 20825994.

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