

## Certificate of Analysis

**Product Name:** Decynium 22

CAS Number: 977-96-8

IUPAC Name: 1-Ethyl-2-[(1-ethyl-2(1*H*)-quinolinylidene)methyl]quinolinium iodide

**Catalog No.:** 4722

**Batch No.:** 2

EC Number: 213-556-6

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{23}H_{23}IN_2 \cdot \frac{1}{4}H_2O$

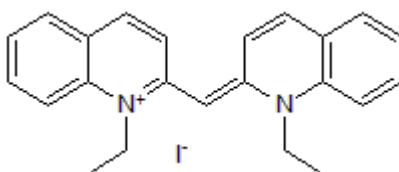
**Batch Molecular Weight:** 458.85

**Physical Appearance:** Red solid

**Solubility:** DMSO to 10 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	60.2	5.16	6.11
Found	60.35	5.15	6.14

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

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**Catalog No.:** 4722

**Batch No.:** 2

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**Description:**

Inhibitor of the plasma membrane monoamine transporter (PMAT) ( $K_i = 0.10 \mu\text{M}$ ).

**Physical and Chemical Properties:**

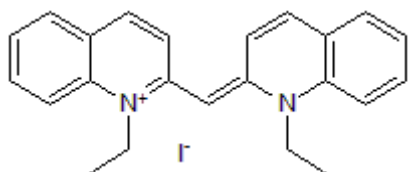
Batch Molecular Formula:  $\text{C}_{23}\text{H}_{23}\text{N}_2 \cdot \frac{1}{4}\text{H}_2\text{O}$

Batch Molecular Weight: 458.85

Physical Appearance: Red solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 10 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:**

**Xia et al** (2009) Podocyte-specific expression of organic cation transporter PMAT: implication in puromycin aminonucleoside nephrotoxicity. *Am.J.Physiol.Renal Physiol.* **296** F1307. PMID: 19357181.

**Engel and Wang** (2005) Interaction of organic cations with a newly identified plasma membrane monoamine transporter. *Mol.Pharmacol.* **68** 1397. PMID: 16099839.

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