

## Certificate of Analysis

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**Product Name:** A 844606

**Catalog No.:** 4477

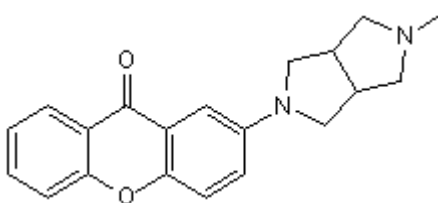
**Batch No.:** 1

CAS Number: 861119-08-6

IUPAC Name: 2-(Hexahydro-5-methylpyrrolo[3,4-c]pyrrol-2(1*H*)-yl)-9*H*-xanthen-9-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>20</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 320.38  
**Physical Appearance:** Yellow solid  
**Solubility:** ethanol to 5 mM with gentle warming  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.43 (Dichloromethane:Methanol:Ammonia soln. [90:9:1])  
**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.98	6.29	8.74
Found	75.23	6.29	8.89

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

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**Description:**

Selective  $\alpha 7$  nicotinic acetylcholine receptor (nAChR) partial agonist ( $EC_{50}$  values are 1.4 and 2.2  $\mu$ M at human and rat receptors respectively). Displays no measurable effect on  $\alpha 4\beta 2$  nAChRs. Stimulates  $\alpha 7$  nAChR-induced ERK1/2 phosphorylation in PC12 cells.

**Physical and Chemical Properties:**

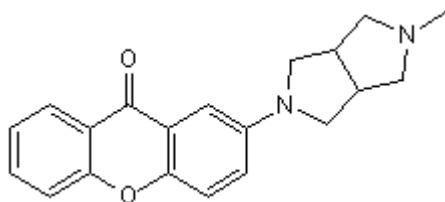
Batch Molecular Formula:  $C_{20}H_{20}N_2O_2$

Batch Molecular Weight: 320.38

Physical Appearance: Yellow solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Briggs et al** (2008) Alpha7 nicotinic acetylcholine receptor agonist properties of tilorone and related tricyclic analogues. *Br.J.Pharmacol.* **153** 1054. PMID: 18157163.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

ethanol to 5 mM with gentle warming

**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.

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