TOCRIS
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Print Date: Jan 15th 2016

# Certificate of Analysis

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**Product Name:** **LY 2087101** **Catalog No.: 4141** **Batch No.: 1**

CAS Number: 913186-74-0

IUPAC Name: [2-[(4-Fluorophenyl)amino]-4-methyl-5-thiazolyl]-3-thienylmethanone

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{15}H_{11}FN_2OS_2$

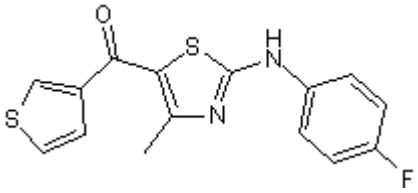
**Batch Molecular Weight:** 318.39

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM
ethanol to 10 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**TLC:** $R_f$ = 0.2 (Pentane/Ethyl Acetate 4:1)

**HPLC:** Shows 99.2% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 56.59 | 3.48 | 8.8 |
| Found | 56.45 | 3.43 | 8.93 |



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**Description:**

Allosteric potentiator of α7, α4β2 and α4β4 nAChRs; displays selectivity against α3β4 nAChRs. Thought to potentiate agonist-evoked α7 responses by binding within the nAChR transmembrane region.

**Physical and Chemical Properties:**

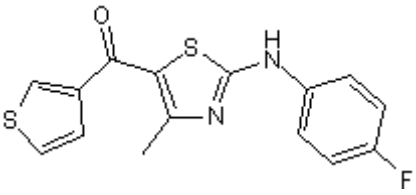
Batch Molecular Formula: $C_{15}H_{11}FN_2OS_2$

Batch Molecular Weight: 318.39

Physical Appearance: Pale yellow solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**




**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM
ethanol 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:**

**Broad** *et al* (2006) Identification and pharmacological profile of a new class of selective nicotinic acetylcholine receptor potentiators. J.Pharmacol.Exp.Ther. ***318*** 1108. PMID: 16738207.

**Young** *et al* (2008) Potentiation of α7 nicotinic acetylcholine receptors via an allosteric transmembrane site. Proc.Natl.Acad.Sci. ***105*** 14686.