

## Certificate of Analysis

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**Product Name:** TQS

**Catalog No.:** 4233

**Batch No.:** 1

CAS Number: 353483-92-8

IUPAC Name: 3a,4,5,9b-Tetrahydro-4-(1-naphthalenyl)-3H-cyclopentan[c]quinoline-8-sulfonamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{22}H_{20}N_2O_2S \cdot \frac{1}{2}H_2O$

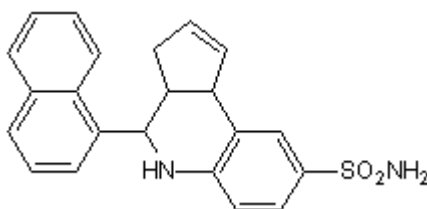
**Batch Molecular Weight:** 385.48

**Physical Appearance:** Off-white solid

**Solubility:** DMSO to 50 mM

**Storage:** Store at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 98.8% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	68.55	5.49	7.27
Found	68.52	5.25	7.48

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**Description:**

Type II positive allosteric modulator of  $\alpha 7$  nACh receptors ( $pEC_{50} = 5.5$ ). Displays no agonist activity at  $\alpha 7$  receptors at concentrations up to 0.1 mM; potentiates agonist-evoked responses and reduces rate of desensitization of  $\alpha 7$  nAChRs. Exhibits potency and efficacy similar to PNU 120596 (Cat. No. 2498).

**Physical and Chemical Properties:**

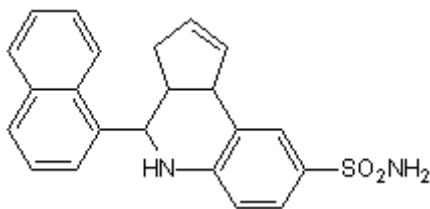
Batch Molecular Formula:  $C_{22}H_{20}N_2O_2S \cdot \frac{1}{2}H_2O$

Batch Molecular Weight: 385.48

Physical Appearance: Off-white solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 50 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:**

**Gronlien et al (2007)** Distinct profiles of  $\alpha 7$  nAChR positive allosteric modulation revealed by structurally diverse chemotypes. *Mol.Pharmacol.* **72** 715. PMID: 17565004.

**Gill et al (2011)** Agonist activation of  $\alpha 7$  nicotinic acetylcholine receptors via an allosteric transmembrane site. *Proc.Natl.Acad.Sci.* **108** 5867.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956