

Product Name: UCPH 101

Catalog No.: 3490

Batch No.: 5

CAS Number: 1118460-77-7

IUPAC Name: 2-Amino-5,6,7,8-tetrahydro-4-(4-methoxyphenyl)-7-(naphthalen-1-yl)-5-oxo-4H-chromene-3-carbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₂₂N₂O₃·¾H₂O

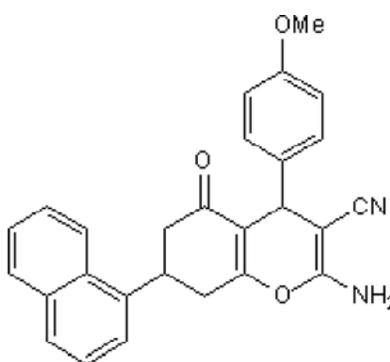
Batch Molecular Weight: 435.99

Physical Appearance: White solid

Solubility: DMSO to 25 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	74.38	5.43	6.43
Found	74.22	5.43	6.57

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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

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Description:

UCPH 101 is a selective non-substrate inhibitor of EAAT1 (IC₅₀ values are 660, >300000 and >300000 nM for EAAT1, EAAT2 and EAAT3 respectively). Also demonstrates no significant inhibition at EAAT4 or EAAT5 in a patch-clamp electrophysiology assay (at final concentration up to 10 μM).

Physical and Chemical Properties:

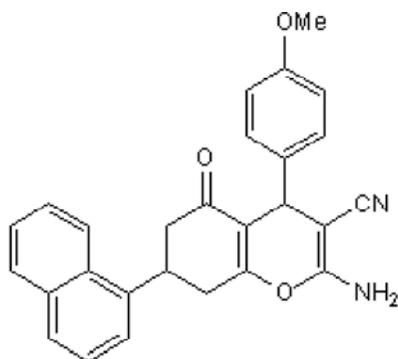
Batch Molecular Formula: C₂₇H₂₂N₂O₃·¾H₂O

Batch Molecular Weight: 435.99

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 25 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:

Abrahamsen et al (2013) Allosteric modulation of an excitatory amino acid transporter: The subtype-selective inhibitor UCPH-101 exerts sustained inhibition of EAAT1 through an intramonomeric site in the trimerization domain. *J.Neurosci.* **33** 1068. PMID: 23325245.

Erichsen et al (2010) Structure-activity relationship study of first selective inhibitor of excitatory amino acid transporter subtype 1: 2-amino-4-(4-methoxyphenyl)-7-(naphthalen-1-yl)-5-oxo-5,6,7,8-tetrahydro-4H-chromene-3-carbonitrile (UCPH-101). *J.Med.Chem.* **53** 7180. PMID: 20857912.

Bunch et al (2009) Excitatory amino acid transporters as potential drug targets. *Exp.Opin.Ther.Targets* **13** 719.

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