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## DATASHEET

UCPH-102

### Product overview

<b>Name</b>	UCPH-102
<b>Cat No</b>	HB6130
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>97%
<b>Description</b>	Selective EAAT1 inhibitor

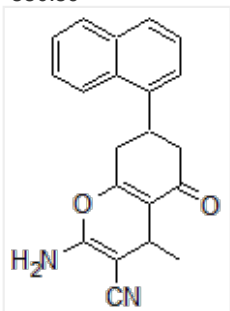
### Biological Data

<b>Biological description</b>	UCPH-102 is an analog of <b>UCPH-101</b> and is a selective inhibitor of the glutamate transporter EAAT1 (excitatory amino acid transporter subtype 1) ( $IC_{50} = 0.42 \mu\text{M}$ and $>300 \mu\text{M}$ at EAAT2-5). UCPH-102 is blood-brain barrier permeable (unlike UCPH-101) and active <i>in vivo</i>
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### Solubility & Handling

<b>Storage instructions</b>	-20°C
<b>Solubility overview</b>	Soluble in DMSO (25 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

### Chemical Data

<b>Chemical name</b>	2-Amino-5,6,7,8-tetrahydro-4-methyl-7-(1-naphthalenyl)-5-oxo-4H-1-benzopyran-3-carbonitrile
<b>Molecular Weight</b>	330.39
<b>Chemical structure</b>	

<b>Molecular Formula</b>	$C_{21}H_{18}N_2O_2$
<b>CAS Number</b>	1229591-56-3
<b>PubChem identifier</b>	46215971
<b>SMILES</b>	<chem>CC1C(=C(OC2=C1C(=O)CC(C2)C3=CC=CC4=CC=CC=C43)N)C#N</chem>
<b>Source</b>	Synthetic
<b>InChi</b>	InChI=1S/C21H18N2O2/c1-12-17(11-22)21(23)25-19-10-14(9-18(24)20(12)19)16-8-4-6-13-5-2-3-7-15(13)16/h2-8,12,14H,9-10,23H2,1H3
<b>InChiKey</b>	XZQMHUGTNOOYFX-UHFFFAOYSA-N
<b>Appearance</b>	White solid

### References

**Probing for improved potency and in vivo bioavailability of excitatory amino acid transporter subtype 1 inhibitors UCPH-101 and UCPH-102: design, synthesis and pharmacological evaluation of substituted 7-biphenyl analogs.**

Erichsen et al (2014) Neurochem Res 39(10)

**PubMedID** [24682739](#)

**Design, synthesis and pharmacological characterization of coumarin-based fluorescent analogs of excitatory amino acid transporter subtype 1 selective inhibitors, UCPH-101 and UCPH-102.**

Huynh et al (2012) Bioorg Med Chem Lett 20(23)

**PubMedID** [23072958](#)

**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.**

Abrahamsen et al (2013) J Neurosci 33(3)

**PubMedID** [23325245](#)

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