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DATASHEET

UCPH-102

Product overview

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

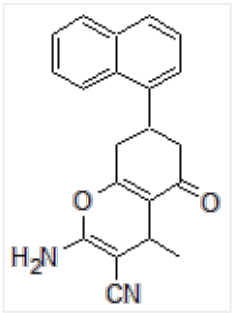
Biological Data

Biological description	UCPH-102 an analog of UCPH-101 and is a selective inhibitor of the glutamate transporter EAAT1 (excitatory amino acid transporter subtype 1) (IC_{50} = 0.42 µM and >300 µM at EAAT2-5). UCPH-102 is blood-brain barrier permeable (unlike UCPH-101) and active *in vivo*

Solubility & Handling

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

Chemical Data

Chemical name	2-Amino-5,6,7,8-tetrahydro-4-methyl-7-(1-naphthalenyl)-5-oxo-4H-1-benzopyran-3-carbonitrile
Molecular Weight	330.39
Chemical structure	
Molecular Formula	$C_{21}H_{18}N_2O_2$
CAS Number	1229591-56-3
PubChem identifier	46215971
SMILES	CC1C(=C(OC2=C1C(=O)CC(C2)C3=CC=CC4=CC=CC=C43)N)C#N
Source	Synthetic
InChi	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
InChiKey	XZQMHUGTNOOYFX-UHFFFAOYSA-N
Appearance	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