UCPH-102

Cat. No.: HY-118858

CAS No.: 1229591-56-3

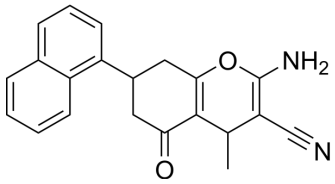
Molecular Formula: $C_{21}H_{18}N_2O_2$

Molecular Weight: 330.38

Target: EAAT

Pathway: Membrane Transporter/Ion Channel

Storage: 4°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 8 mg/mL (24.21 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0268 mL	15.1341 mL	30.2682 mL
	5 mM	0.6054 mL	3.0268 mL	6.0536 mL
	10 mM	0.3027 mL	1.5134 mL	3.0268 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

UCPH-102 is a highly selective EAAT1 inhibitor with an IC_{50} of 0.43 μM. UCPH-102 exhibits a specific anti-proliferative effect on T-ALL cells. UCPH-102 also shows good blood-brain permeability, which can be used in studies of amyotrophic lateral sclerosis, Alzheimer's disease, chronic pain and obsessive compulsive disorder[1][2][3][4].

IC_{50} & Target

EAAT1

REFERENCES

[1]. Huynh TH, et al. Design, synthesis and pharmacological characterization of coumarin-based fluorescent analogs of excitatory amino acid transporter subtype 1 selective inhibitors, UCPH-101 and UCPH-102. Bioorg Med Chem. 2012 Dec 1;20(23):6831-9.

[2]. Haym I, et al. Bioavailability Studies and in vitro Profiling of the Selective Excitatory Amino Acid Transporter Subtype 1 (EAAT1) Inhibitor UCPH-102. ChemMedChem. 2016 Feb 17;11(4):403-19.

[3]. Stanulović V S, et al. Proliferation and Survival of T-cell Acute Lymphoblastic Leukaemia Depends on mTOR-regulated Glutamine Uptake and EAAT1-dependent Conversion of Glutamine to Aspartate and Nucleotides. bioRxiv. 2020.

[4]. Abrahamsen B, et al. 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. 2013 Jan 16;33(3):1068-87.

Caution: Product has not been fully validated for medical applications. For research use only.

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