

Product Data Sheet

Product Name: HCM-01
Cat. No.: GC81583

Chemical Properties

Cas. No. 2117631-52-2

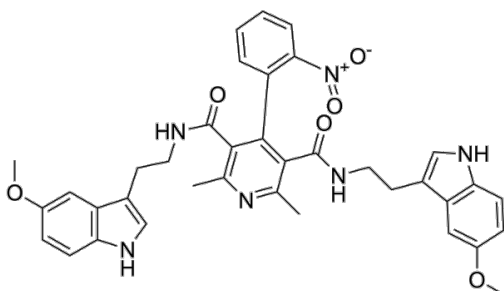
Formula $C_{37}H_{36}N_6O_6$ M.Wt 660.72

Solubility DMSO: 100 mg/mL (151.35 mM; Need ultrasonic) Storage Store at room temperature

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

HCM-01 is an Excitatory amino acid transporter 2 (EAAT2) activator with oral effectiveness and blood-brain barrier penetration. HCM-01 binds to the allosteric site of EAAT2, increases EAAT2

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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expression in astrocytes, enhances glutamate-handling capacity, and modulates glutamate homeostasis. HCM-01 acts as an antioxidant, improves oxidative/antioxidative balance and increases total antioxidant capacity. HCM-01 can be used for the research of Alzheimer's disease [1].

In Vivo, HCM-01 (50-100 mg/kg; p.o. or i.p.; once daily for 24 days) improves cognitive function, reduces hippocampal neuronal degeneration, attenuates tau and β -amyloid pathology, and restores cholinergic function in Streptozotocin -induced Alzheimer's disease-like rats [1].

In Vitro, HCM-01 (0.1-1000 μ M; 24 h) confers significant neuroprotection against glutamate-induced excitotoxicity in primary hippocampal neurons, region-dependent protection in cortical and cerebellar cultures at concentrations of 0.1, 1, and 10 μ M, while exhibiting cytotoxicity at 100 and 1000 μ M [1]. HCM-01 (1 μ M; 24 h) increases EAAT2 expression in C8-D1A astrocytic cells under glutamate-induced excitotoxic conditions without affecting cell viability [1]. HCM-01 (0.1-1000 μ M; 24 h) improves oxidative/antioxidative balance in primary hippocampal neuronal cultures under glutamate-induced stress [1].

References:

[1]. Hacımüftüoğlu A, et al. Multi-Target Neuroprotective Compound Exhibits EAAT2-Modulating and Alzheimer's Pathology-Attenuating Effects in In Vitro and In Vivo Models. ACS Chem Neurosci. 2026;17(10):1919-1944.

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