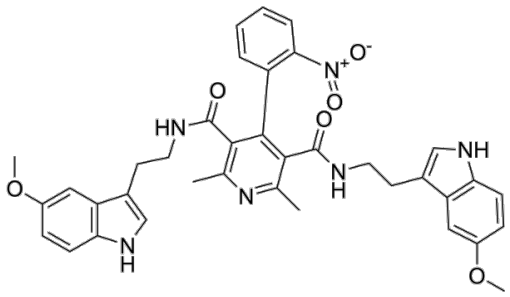
Product Data Sheet

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

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 μM; 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 μM, while exhibiting cytotoxicity at 100 and 1000 μM[1]. HCM-01 (1 μM; 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 μM; 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.