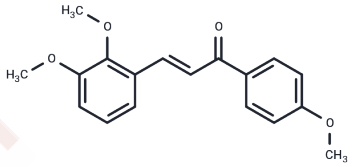
Data Sheet (Cat.No.T69626)

TargetMol

L6H21

Chemical Properties



CAS No. : 24533-47-9

Formula: C18H18O4

Molecular Weight: 298.33

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	L6H21 is an MD-2 inhibitor that can be used to study cognitive impairment and brain damage.
Targets(IC50)	Apoptosis,Bcl-2 Family,NF-κB,Reactive Oxygen Species,Caspase,NOD-like Receptor (NLR),Interleukin,ROS,TLR,TNF
In vitro	The cells were exposed to ethanol (EtOH; 100 mmol/l) for 48 hours prior to the treatment with LPS at 500 ng/ml for 6 hours. L6H21 was administered (10 or 20 μmol/l) 2 hours before EtOH treatment. L6H21 protects against oxidative stress and apoptosis induced by EtOH and/or LPS in RAW264.7 cells. [1]
In vivo	A group of mice was treated with L6H21 via oral gavage at a dose of 10 mg/kg/d on the same day as the start of alcohol feeding. L6H21 treatment significantly decreased inflammation in liver tissue induced by EtOH + LPS. LPS aggravated EtOH-induced hepatic steatosis and liver injury, which was improved with L6H21 pretreatment. L6H21 treatment plays an important role in the inhibition of EtOH + LPS-induced inflammasome activation in the liver. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (268.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (11.06 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.352 mL	16.760 mL	33.5199 mL
5 mM	0.6704 mL	3.352 mL	6.704 mL
10 mM	0.3352 mL	1.676 mL	3.352 mL
50 mM	0.067 mL	0.3352 mL	0.6704 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kong X, et al. Chalcone Derivative L6H21 Reduces EtOH + LPS-Induced Liver Injury Through Inhibition of NLRP3 Inflammasome Activation. Alcohol Clin Exp Res. 2019 Aug;43(8):1662-1671.
Oo TT, et al. L6H21 protects against cognitive impairment and brain pathologies via toll-like receptor 4-myeloid differentiation factor 2 signalling in prediabetic rats. Br J Pharmacol. 2022 Mar;179(6):1220-1236.
Wang Y, et al. MD-2 as the target of a novel small molecule, L6H21, in the attenuation of LPS-induced inflammatory response and sepsis. Br J Pharmacol. 2015 Sep;172(17):4391-405.