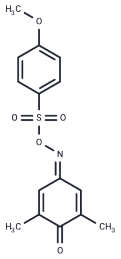
Data Sheet (Cat.No.T11807)

L002

Chemical Properties



CAS No. : 321695-57-2

Formula: C15H15NO5S

Molecular Weight: 321.35

Storage: 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	L002, a potent, cell-permeable, reversible, and specific acetyltransferase p300 (KAT3B) inhibitor with an IC50 of 1.98 μM, directly binds the acetyl-CoA pocket and competitively inhibits the FATp300 catalytic domain. By blocking histone acetylation, p53 acetylation, and STAT3 activation, L002 shows potential in the treatment of hypertension-induced cardiac hypertrophy and fibrogenesis.
Targets(IC50)	Epigenetic Reader Domain,Histone Acetyltransferase,STAT
In vitro	L002 also has weak inhibitory effects against PCAF and GCN5 (IC50s =35 and 34 μM, respectively) and is specific for p300 over a panel of deacetylases, additional acetyltransferases, and methyltransferases.
In vivo	L002 reverses hypertension-induced cardiac hypertrophy and fibrosis by treatment of mice after inducing hypertension for two weeks significantly.It also reduces the levels of perivascular and interstitial collagen in the myocardium compared to non-treated hypertensive mice.

Solubility Information

Solubility	DMSO: 60 mg/mL (186.71 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: 2 mg/mL (6.22 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	3.1119 mL	15.5594 mL	31.1187 mL
5 mM	0.6224 mL	3.1119 mL	6.2237 mL
10 mM	0.3112 mL	1.5559 mL	3.1119 mL
50 mM	0.0622 mL	0.3112 mL	0.6224 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

Rai R, et al. A novel acetyltransferase p300 inhibitor ameliorates hypertension-associated cardio-renal fibrosis. Epigenetics. 2017;12(11):1004-1013.
Sun XJ, et al. The Role of Histone Acetyltransferases in Normal and Malignant Hematopoiesis. Front Oncol. 2015 May 26;5:108.
Rai R, et al. Acetyltransferase p300 inhibitor reverses hypertension-induced cardiac fibrosis.J Cell Mol Med. 2019 Apr;23(4):3026-3031.