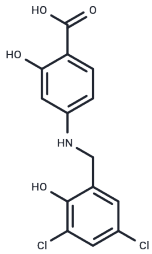
Data Sheet (Cat.No.T17293)

TargetMol

ZL006

Chemical Properties



CAS No. : 1181226-02-7

Formula: C14H11Cl2NO4

Molecular Weight: 328.15

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	ZL006 is an effective inhibitor of nNOS/PSD-95 interaction. ZL006 also inhibits NMDA receptor-mediated NO synthesis.
Targets(IC50)	NMDAR,iGluR
In vitro	ZL006 growth inhibition of BCECs is not found at a low concentration of 0.001, 0.01, 0.1, 1, and 10 μg/mL. The cytotoxicity of T7-P-LPs/ZL006 is obviously enhanced at the concentration of 10 μg/mL. Cellular uptake of ZL006 loads P-LPs and T7-P-LPs after incubation for 0.5 h at the concentrations range from 100 μg/mL to 600 μg/mL in BCECs [1][2].
In vivo	T7-P-LPs/ZL006 displays a significant enhance in drug accumulation in the brain tissue due to its better brain targeting delivery compared with P-LPs/ZL006 and free ZL006. P-LPs/ZL006 and T7-P-LPs/ZL006 show a significant decrease in drug accumulation in the liver and kidney compared with free ZL006 [1].

Solubility Information

Solubility	DMSO: 29 mg/mL (88.37 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 (6.09 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	3.0474 mL	15.2369 mL	30.4739 mL
5 mM	0.6095 mL	3.0474 mL	6.0948 mL
10 mM	0.3047 mL	1.5237 mL	3.0474 mL
50 mM	0.0609 mL	0.3047 mL	0.6095 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

Wang Z, et al. Enhanced anti-ischemic stroke of ZL006 by T7-conjugated PEGylated liposomes drug delivery system. Sci Rep. 2015 Jul 29;5:12651.
Yang L, Cui J, Zeng L, et al. Targeting PSD95/nNOS by ZL006 alleviates social isolation-induced heightened attack behavior in mice. Psychopharmacology. 2021: 1-10.
Yang L, Cui J, Zeng L, et al. Targeting PSD95/nNOS by ZL006 alleviates social isolation-induced heightened attack behavior in mice. Psychopharmacology. 2021: 1-10.
Bach A, et al. Biochemical investigations of the mechanism of action of small molecules ZL006 and IC87201 as potential inhibitors of the nNOS-PDZ/PSD-95-PDZ interactions. Sci Rep. 2015 Jul 16;5:12157.
Liu Y, Yao Y, Fang W, et al.Combinatorial therapy with sub-effective Ro25-6981 and ZL006 ameliorates depressive-like behavior in single or combined stressed male mice.Biochemical and Biophysical Research Communications. 2024: 150385.