

ZLc-002

## Chemical Properties

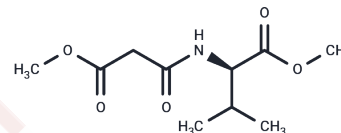
CAS No. : 1446971-41-0

Formula: C<sub>10</sub>H<sub>17</sub>NO<sub>5</sub>

Molecular Weight: 231.25

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   | ZLc-002 is a selective small-molecule inhibitor of nNOS-Capon coupling. ZLc-002 suppresses inflammatory nociception and chemotherapy-induced neuropathic pain. ZLc-002 can be used in anxiety disorder and inflammation research[1] [2] [3].   |
| Targets(IC50) | Others,NO Synthase   |
| In vitro      | ZLc-002 (1 μM; 24 h) demonstrates inhibitory activity of nNOS-CAPON in cultured hippocampal neurons from ICR mice, as shown in a Cell Viability Assay [3].   |
| In vivo       | ZLc-002 demonstrates therapeutic efficacy across several models of disease. At a dosage of 30 mg/kg administered intraperitoneally from days 4 to 46 post-stroke, it significantly improves motor function in transient middle cerebral artery occlusion (tMCAO) mice, indicating its potential for enhancing recovery from stroke-related motor deficits [1]. Moreover, when administered at 40 mg/kg intravenously for seven consecutive days in adult male ICR mice exposed to chronic mild stress (CMS), ZLc-002 alleviates CMS-induced anxiety-related behaviors, evidencing its anxiolytic effects [2]. Additionally, a precise hippocampal injection of 10 μM (1 μL) daily over a week in mice subjected to corticosterone (CORT) reveals a marked improvement in managing CORT-induced anxiety-related behaviors, showcasing its versatility in addressing anxiety disorders induced by chronic stressors [2]. |

### Preparing Stock Solutions

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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 4.3243 mL  | 21.6216 mL | 43.2432 mL  |
| 5 mM  | 0.8649 mL  | 4.3243 mL  | 8.6486 mL   |
| 10 mM | 0.4324 mL  | 2.1622 mL  | 4.3243 mL   |
| 50 mM | 0.0865 mL  | 0.4324 mL  | 0.8649 mL   |

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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.

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