

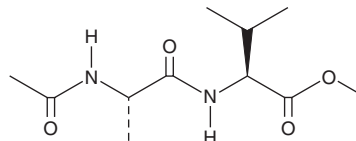
# PRODUCT INFORMATION



**ZZL-7**

Item No. 38645

**CAS Registry No.:** 99141-91-0  
**Formal Name:** N-acetyl-L-alanyl-L-valine, methyl ester  
**Synonyms:** Ac-Ala-Val-OMe, Methyl acetyl-L-alanyl-L-valinate  
**MF:** C<sub>11</sub>H<sub>20</sub>N<sub>2</sub>O<sub>4</sub>  
**FW:** 244.3  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

ZZL-7 is supplied as a solid. A stock solution may be made by dissolving the ZZL-7 in the solvent of choice, which should be purged with an inert gas. ZZL-7 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ZZL-7 in DMSO is approximately 10 mg/ml and approximately 30 mg/ml in ethanol and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ZZL-7 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ZZL-7 in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

## Description

ZZL-7 is an inhibitor of the protein-protein interaction between the serotonin transporter (SERT) and neuronal nitric oxide synthase (nNOS).<sup>1</sup> It increases *in vivo* serotonergic neuron firing in SERT-Cre transgenic mice, which have reduced SERT levels, when administered at a dose of 10 mg/kg. ZZL-7 (20 and 40 mg/kg) reduces immobility time in the tail suspension test and forced swim test in mice.

## Reference

1. Sun, N., Qin, Y.-J., Xu, C., *et al.* Design of fast-onset antidepressant by dissociating SERT from nNOS in the DRN. *Science* **378**(6618), 390-398 (2022).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 07/24/2023

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
[WWW.CAYMANCHEM.COM](http://WWW.CAYMANCHEM.COM)