

## Product Data Sheet

Product Name: (R)-AS-1  
Cat. No.: GC91906

### Chemical Properties

Cas. No. 2506367-95-7

Chemical Name  $\alpha$ R-methyl-2,5-dioxo-N-(phenylmethyl)-1-pyrrolidineacetamide

SMILES C[C@H](C(NCC1=CC=CC=C1)=O)N(C(=O)C2=O)C2=O

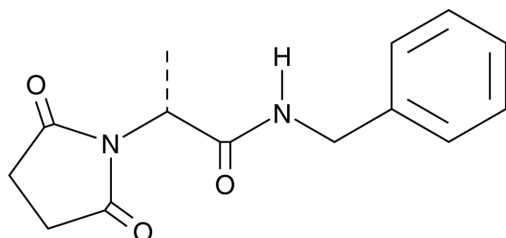
Formula  $C_{14}H_{16}N_2O_3$  M.Wt 260.3

Solubility Acetonitrile: Slightly soluble: 0.1-1 mg/ml, DMSO: Sparingly soluble: 1-10 mg/ml  
Storage  $-20^{\circ}\text{C}$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}\text{C}$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}\text{C}$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



### Background

(R)-AS-1 is a positive allosteric modulator of excitatory amino acid transporter 2 (EAAT2;  $EC_{50} = 11$  nM in a glutamate uptake assay).<sup>1</sup> It is selective for EAAT2 over EAAT1, EAAT3, and a panel of 30 other ion channels, transporters, receptors, and enzymes. (R)-AS-1 (60 and 90 mg/kg) increases spontaneous locomotor activity in mice. It has anticonvulsant activity in mouse models of seizures induced by maximal electroshock (MES), pentylenetetrazole (PTZ), or electrical stimuli of 32 or 44 mA ( $ED_{50}$ s = 66.3, 36.3, 15.6, and 41.6 mg/kg, respectively).

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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### References:

[1]. Abram, M., Jakubiec, M., Reeb, K., et al. Discovery of (R)-N-benzyl-2-(2,5-dioxopyrrolidin-1-yl)propanamide [(R)-AS-1], a novel orally bioavailable EAAT2 modulator with drug-like properties and potent antiseizure activity in vivo. *J. Med. Chem.* 65(17)11703-11725(2022).

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