

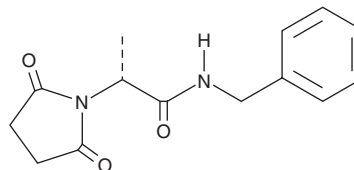
# PRODUCT INFORMATION



## (R)-AS-1

Item No. 41673

CAS Registry No.: 2506367-95-7  
Formal Name:  $\alpha$ R-methyl-2,5-dioxo-N-(phenylmethyl)-1-pyrrolidineacetamid  
MF:  $C_{14}H_{16}N_2O_3$   
FW: 260.3  
Purity:  $\geq 95\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

(R)-AS-1 is supplied as a solid. A stock solution may be made by dissolving the (R)-AS-1 in the solvent of choice, which should be purged with an inert gas. (R)-AS-1 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

### Description

(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; Item No. 18682), or electrical stimuli of 32 or 44 mA ( $ED_{50}$ s = 66.3, 36.3, 15.6, and 41.6 mg/kg, respectively).

### Reference

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).

#### 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

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