**Proteins** 

## **Product** Data Sheet



## (2R,3S)-E1R

Cat. No.: HY-116463A CAS No.: 1424832-60-9 Molecular Formula:  $C_{13}H_{16}N_{2}O_{2}$ Molecular Weight: 232.28

Target: Sigma Receptor Pathway: **Neuronal Signaling** 

Powder -20°C Storage: 3 years

4°C 2 years

-80°C In solvent 6 months

> -20°C 1 month

## **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 250 mg/mL (1076.29 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.3051 mL	21.5257 mL	43.0515 mL
	5 mM	0.8610 mL	4.3051 mL	8.6103 mL
	10 mM	0.4305 mL	2.1526 mL	4.3051 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 12.5 mg/mL (53.81 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 12.5 mg/mL (53.81 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 12.5 mg/mL (53.81 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description (2R,3S)-E1R (Compound 2c) is an enantiomer of E1R. (2R,3S)-E1R is a sigma-1 receptor positive allosteric modulator (Sig1R PAM) for the treatment of cognition/memory disorders<sup>[1]</sup>.

In Vitro

Sigma-1 receptor plays an important role in neuronal plasticity, a process implicated in the pathophysiology of neuropsychiatric diseases, such as Alzheimer's disease, major depressive disorders, and schizophrenia<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES					
[1]. Veinberg G, et al. Synthesis and biological evaluation of 2-(5-methyl-4-phenyl-2-oxopyrrolidin-1-yl)-acetamide stereoisomers as novel positive allosteric modulators sigma-1 receptor. Bioorg Med Chem. 2013 May 15;21(10):2764-71.					
	Caution: Product has not been fully validated for medical applications. For research use only.				
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