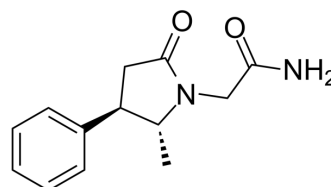


(2R,3R)-E1R

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-116463C | | |
| CAS No.: | 1400888-63-2 | | |
| Molecular Formula: | C ₁₃ H ₁₆ N ₂ O ₂ | | |
| Molecular Weight: | 232.28 | | |
| Target: | Sigma Receptor | | |
| Pathway: | GPCR/G Protein; Neuronal Signaling | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|---|--------------------------|-----------|-----------|------------|------------|
| In Vitro | DMSO : 50 mg/mL (215.26 mM; Need ultrasonic) | | | | | |
| | | Solvent Concentration | Mass | 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 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 | <ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 5 mg/mL (21.53 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 5 mg/mL (21.53 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (21.53 mM); Clear solution | | | | | |

BIOLOGICAL ACTIVITY

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