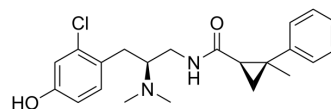


Mu opioid receptor antagonist 7

| | |
|--------------------|---|
| Cat. No.: | HY-155320 |
| CAS No.: | 2378397-30-7 |
| Molecular Formula: | C ₂₂ H ₂₇ ClN ₂ O ₂ |
| Molecular Weight: | 386.91 |
| Target: | Opioid Receptor |
| Pathway: | GPCR/G Protein; Neuronal Signaling |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|---|
| Description | Mu opioid receptor antagonist 7 (compound 24) is a potent and CNS permeable antagonist of μ OR (μ -opioid receptor), with an IC ₅₀ of 29 ± 3.0 nM. Mu opioid receptor antagonist 7 can be used for the research of pain and opioid use disorder ^[1] . |
| IC₅₀ & Target | μ Opioid Receptor/MOR 29 ± 3.0 nM (IC ₅₀) |
| In Vivo | <p>Mu opioid receptor antagonist 7 (compound 24) (10 mg/kg) displays strong blockade of the analgesic effect induced by μOR agonist, demonstrating its ability to antagonize μOR agonists^[1].</p> <p>Mu opioid receptor antagonist 7 (10 mg/kg, rat) can revert respiratory suppression induced by fentanyl, a higher efficacy μOR agonist^[1].</p> <p>Mu opioid receptor antagonist 7 (10 mg/kg, sc, rat) can achieve 70% receptor occupancy of the μOR thus demonstrating the high CNS permeability of this compound^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |

REFERENCES

[1]. Nerurkar A, et al. Novel series of tunable μ OR modulators with enhanced brain penetration for the treatment of opioid use disorder, pain and neuropsychiatric indications. *Bioorg Med Chem Lett*. 2023 Aug 15;92:129405.

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

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