YNT-185 dihydrochloride

Cat. No.: HY-136181

CAS No.: 1804978-82-2

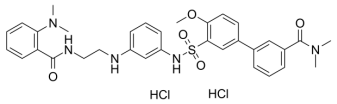
Molecular Formula: $C_{33}H_{39}Cl_2N_5O_5S$

Molecular Weight: 688.66

Target: Orexin Receptor (OX Receptor)

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (181.51 mM; Need ultrasonic)
H_2O : 100 mg/mL (145.21 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.4521 mL	7.2605 mL	14.5210 mL
5 mM	0.2904 mL	1.4521 mL	2.9042 mL
10 mM	0.1452 mL	0.7260 mL	1.4521 mL

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

In Vivo

1. Add each solvent one by one: Saline
Solubility: 12.5 mg/mL (18.15 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

YNT-185 dihydrochloride is a nonpeptide, selective orexin type-2 receptor (OX2R) agonist, with EC_{50}s of 0.028 and 2.75 μM for OX2R and OX1R, respectively. YNT-185 dihydrochloride ameliorates narcolepsy-cataplexy symptoms in mouse models[1][2].

IC_{50} & Target

OX_2 Receptor	OX_1 Receptor
0.028 μM (EC50)	2.75 μM (EC50)

In Vivo

YNT-185 dihydrochloride (20-40 mg/kg; i.p.) increases wakefulness in mice[2].
YNT-185 dihydrochloride (300 nmol; i.c.v.) significantly increases wake time for 3 hours in a dose-dependent manner, accompanied by a decrease in NREM sleep time, in wild-type mice but not in OXRDKO mice[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male wild-type C57BL/6J mice[2]
Dosage:	20, 40 mg/kg
Administration:	I.p.
Result:	Wake time was also significantly increased.

REFERENCES

[1]. Nagahara T, et al. Design and Synthesis of Non-Peptide, Selective Orexin Receptor 2 Agonists. J Med Chem. 2015;58(20):7931-7937.

[2]. Irukayama-Tomobe Y, et al. Nonpeptide orexin type-2 receptor agonist ameliorates narcolepsy-cataplexy symptoms in mouse models. Proc Natl Acad Sci U S A. 2017;114(22):5731-5736.

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