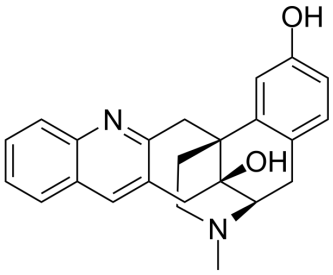
KNT-127

Cat. No.:	HY-120511
CAS No.:	1256921-89-7
Molecular Formula:	$C_{24}H_{24}N_2O_2$
Molecular Weight:	372.46
Target:	Opioid 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 : 25 mg/mL (67.12 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6849 mL	13.4243 mL	26.8485 mL
	5 mM	0.5370 mL	2.6849 mL	5.3697 mL
	10 mM	0.2685 mL	1.3424 mL	2.6849 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (3.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

KNT-127 is a potent and selective δ-opioid receptor agonist effective by systemic administration. KNT-127 shows selectivity for the δ-receptor (K_i 0f 21.3, 0.16, 153 nM for opioid μ-, δ-, and κ-receptors, respectively). KNT-127 increases the release of dopamine and L-glutamate in the striatum, nucleus accumbens and median pre-frontal cortex. Antidepressant-like effects[1][2].

REFERENCES

[1]. Nagase H, et al. Design and synthesis of KNT-127, a δ-opioid receptor agonist effective by systemic administration. Bioorg Med Chem Lett. 2010;20(21):6302-6305.

[2]. Tanahashi S, et al. Novel δ1-receptor agonist KNT-127 increases the release of dopamine and L-glutamate in the striatum, nucleus accumbens and median pre-frontal

cortex. Neuropharmacology. 2012;62(5-6):2057-2067.

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