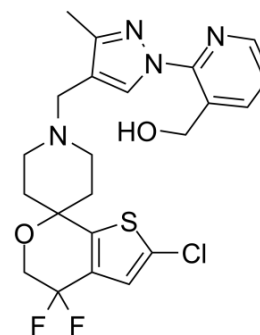


LY-2940094

Cat. No.:	HY-114452		
CAS No.:	1307245-86-8		
Molecular Formula:	C ₂₂ H ₂₃ ClF ₂ N ₄ O ₂ S		
Molecular Weight:	480.96		
Target:	Opioid Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



Solvent & Solubility

In Vitro

DMSO : 41.67 mg/mL (86.64 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.0792 mL	10.3959 mL	20.7917 mL
	5 mM	0.4158 mL	2.0792 mL	4.1583 mL
	10 mM	0.2079 mL	1.0396 mL	2.0792 mL

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

In Vivo

- Add each solvent one by one: **10% DMSO >> 90% (20% SBE- β -CD in saline)**
Solubility: \geq 2.08 mg/mL (4.32 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
Solubility: \geq 2.08 mg/mL (4.32 mM); Suspended solution
- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
Solubility: \geq 2.08 mg/mL (4.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

LY-2940094 is a potent, selective and orally available **nociceptin receptor (NOP receptor)** antagonist with high affinity ($K_i=0.105$ nM) and antagonist potency ($K_b=0.166$ nM). LY-2940094 reduces ethanol self-administration in animal models^[1].

IC₅₀ & Target

K_i: 0.105 nM (NOP receptor)^[1]
K_b: 0.166 nM (NOP receptor)^[1]

In Vivo

LY-2940094 (LY2940094; 3, 10, or 30 mg/kg; 2-3 mL/kg; orally daily; for 4 days) dose-dependently reduces homecage ethanol self-administration in Indiana Alcohol-Preferring (P) and Marchigian Sardinian Alcohol-Preferring (msP) rats, without affecting food/water intake or locomotor activity^[1].

Animal Model:	Female Alcohol-Preferring (P) rats (250-320 g); Male Marchigian Sardinian Alcohol-Preferring (msP) rats (400-450 g) ^[1]
Dosage:	3, 10, or 30 mg/kg; 2-3 mL/kg
Administration:	Administered orally; daily; 4 days
Result:	Reduced homecage ethanol self-administration.

REFERENCES

[1]. Rorick-Kehn LM, et al. A Novel, Orally Bioavailable Nociceptin Receptor Antagonist, LY2940094, Reduces Ethanol Self-Administration and Ethanol Seeking in Animal Models. *Alcohol Clin Exp Res.* 2016 May;40(5):945-54.

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

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