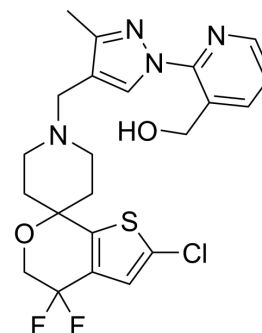


## LY2940094

<b>Cat. No.:</b>	HY-114452		
<b>CAS No.:</b>	1307245-86-8		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>23</sub> ClF <sub>2</sub> N <sub>4</sub> O <sub>2</sub> S		
<b>Molecular Weight:</b>	480.96		
<b>Target:</b>	Opioid Receptor		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling		
<b>Storage:</b>	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)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	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 >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (4.32 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (4.32 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (4.32 mM); Suspended solution

### BIOLOGICAL ACTIVITY

#### Description

LY2940094 (BTRX-246040) 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). LY2940094 reduces ethanol self-administration in animal models<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

NOP Receptor/ORL1

#### In Vivo

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

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food/water intake or locomotor activity<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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

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## 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.

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

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