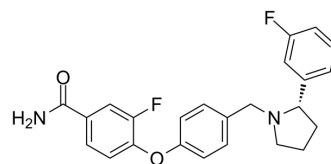


LY2444296

Cat. No.:	HY-135230		
CAS No.:	1346133-11-6		
Molecular Formula:	C ₂₄ H ₂₂ F ₂ N ₂ O ₂		
Molecular Weight:	408.44		
Target:	Opioid Receptor		
Pathway:	GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	Ethanol : 27.5 mg/mL (67.33 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
	Preparing Stock Solutions	1 mM	2.4483 mL	12.2417 mL
	5 mM	0.4897 mL	2.4483 mL	4.8967 mL
	10 mM	0.2448 mL	1.2242 mL	2.4483 mL
Please refer to the solubility information to select the appropriate solvent.				
In Vivo	1. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.75 mg/mL (6.73 mM); Clear solution 2. Add each solvent one by one: 10% EtOH >> 90% corn oil Solubility: ≥ 2.75 mg/mL (6.73 mM); Clear solution			

BIOLOGICAL ACTIVITY

Description	LY2444296 is an orally bioavailable, high-affinity and selective short-acting kappa opioid receptor (KOPR) antagonist, with a K _i value of -1 nM. LY2444296 exhibits anti-anxiety like effects ^{[1][2]} .
IC₅₀ & Target	Ki: ~1 nM (KOPR) ^[1]
In Vivo	LY2444296 displays anti-anxiety like effects in the EPM test ^[1] . LY2444296 (3 mg/kg; i.p.; 30 min before U69,593 administration) prevents behavioral and neuroendocrine effects caused by the reference kappa agonist U69,593 in cocaine-naïve rats ^[2] . LY2444296 reduces anxiety-like and depressive-like behaviors, as well as CORT release, in rats tested after chronic extended access cocaine self-administration, but not in cocaine-naïve rats ^[2] .

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

Animal Model:	Adult male Sprague Dawley rats (240–250 g) ^[2]
Dosage:	3 mg/kg
Administration:	Injected intraperitoneally; 30 min before U69,593 administration
Result:	Prevented behavioral and neuroendocrine effects caused by U69,593 in cocaine-naïve rats.

REFERENCES

[1]. Huang P, et al. Two short-acting kappa opioid receptor antagonists (zyklophin and LY2444296) exhibited different behavioral effects from the long-acting antagonist norbinaltorphimine in mouse anxiety tests. *Neurosci Lett.* 2016 Feb 26;615:15-20.

[2]. Valenza M, et al. "Effects of the novel relatively short-acting kappa opioid receptor antagonist LY2444296 in behaviors observed after chronic extended-access cocaine self-administration in rats". *Psychopharmacology (Berl)*. 2017 Aug;234(15):2219-2231.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA