# LX-1031

Cat. No.:	HY-13041			
CAS No.:	945976-76-1			
Molecular Formula:	$C_{28}H_{25}F_{3}N_{4}O_{4}$			
Molecular Weight:	538.52			
Target:	Tryptophan Hydroxylase			
Pathway:	Metabolic Enzyme/Protease			
Storage:	Powder	-20°C	3 years	
		4°C	2 years	
	In solvent	-80°C	2 years	
		-20°C	1 year	

### SOLVENT & SOLUBILITY

In Vitro	DMSO : ≥ 34 mg/mL (63.14 mM) * "≥" means soluble, but saturation unknown.						
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg		
		1 mM	1.8569 mL	9.2847 mL	18.5694 mL		
		5 mM	0.3714 mL	1.8569 mL	3.7139 mL		
		10 mM	0.1857 mL	0.9285 mL	1.8569 mL		
	Please refer to the solubility information to select the appropriate solvent.						
In Vivo	n Vivo 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.64 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.64 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.64 mM); Clear solution						

## **BIOLOGICAL ACTIVITY**

Description	LX-1031 is a potent, orally available tryptophan 5-hydroxylase (TPH) inhibitor that reduces serotonin (5-HT) synthesis peripherally.
In Vivo	With oral administration of LX-1031 in mice, the average 5-HT reductions in the jejunum relative to control are appr 33, 51, and 66% with the 15, 45 and 135 mg/kg/day doses respectively. In a preliminary report, the effects of LX-1031, 100 mg/kg daily, on 5-HT levels in jejunal mucosa are reversible within 2 days of discontinuation in mice <sup>[1]</sup> . LX-1031 dose-dependently

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reduces expression of 5-HT in the duodenum, jejunum and ileum, but has no effect on brain 5-HT levels in preclinical assay [2].

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

#### **CUSTOMER VALIDATION**

• Cell Rep. 2019 Jul 16;28(3):792-803.e4.

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#### REFERENCES

[1]. Camilleri M. LX-1031, a tryptophan 5-hydroxylase inhibitor, and its potential in chronic diarrhea associated with increased serotonin. Neurogastroenterol Motil. 2011 Mar;23(3):193-200.

[2]. Camilleri M. LX-1031, a tryptophan 5-hydroxylase inhibitor that reduces 5-HT levels for the potential treatment of irritable bowel syndrome. IDrugs. 2010 Dec;13(12):921-8.

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

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