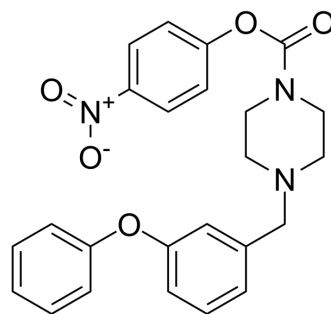


JZL195

Cat. No.:	HY-15250		
CAS No.:	1210004-12-8		
Molecular Formula:	C ₂₄ H ₂₃ N ₃ O ₅		
Molecular Weight:	433.46		
Target:	FAAH; MAGL; Autophagy		
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling; Autophagy		
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 : 50 mg/mL (115.35 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	1 mM	2.3070 mL	11.5351 mL	23.0702 mL
	5 mM	0.4614 mL	2.3070 mL	4.6140 mL
	10 mM	0.2307 mL	1.1535 mL	2.3070 mL
Please refer to the solubility information to select the appropriate solvent.				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.77 mM); Clear solution			

BIOLOGICAL ACTIVITY

Description	JZL195 is a selective and efficacious dual fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) inhibitor with IC ₅₀ s of 2 and 4 nM, respectively ^[1] .
IC₅₀ & Target	IC ₅₀ : 2 nM (FAAH), 4 nM (MAGL) ^[1]
In Vitro	<p>JZL195 produces near-complete blockade of FP-Rh labeling of both mouse brain FAAH and MAGL at concentrations as low as 100 nM (IC₅₀ values of 13 and 19 nM, respectively)^[1].</p> <p>JZL195 inhibits rat and human FAAH and MAGL enzymes with IC₅₀ values in the range of ≈10-100 nM based on competitive ABPP assays^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

In Vivo

JZL195 (20 mg/kg; i.p.) produces an antinociceptive response in the tail immersion assay^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6J mice ^[1]
Dosage:	20 mg/kg
Administration:	Intraperitoneal injection
Result:	Produced a much greater antinociceptive response in the tail immersion assay compared with inhibitors of either FAAH or MAGL alone.

REFERENCES

[1]. Long JZ, et al. Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk in vivo. Proc Natl Acad Sci U S A. 2009 Dec 1;106(48):20270-5.

[2]. Anderson WB, et al. Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine inflammatory pain model. Neuropharmacology. 2014 Jun;81:224-30.

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

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