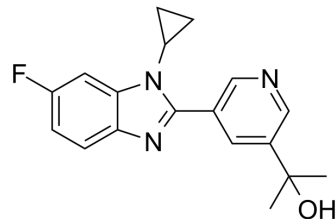


CYP11B2-IN-1

Cat. No.:	HY-135281		
CAS No.:	1356479-78-1		
Molecular Formula:	C ₁₈ H ₁₈ FN ₃ O		
Molecular Weight:	311.35		
Target:	Cytochrome P450		
Pathway:	Metabolic Enzyme/Protease		
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 : 100 mg/mL (321.18 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.2118 mL	16.0591 mL	32.1182 mL
		5 mM	0.6424 mL	3.2118 mL	6.4236 mL
10 mM		0.3212 mL	1.6059 mL	3.2118 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 (8.03 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.03 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	CYP11B2-IN-1 is a CYP11B2 inhibitor with an IC ₅₀ of 2.3 nM. CYP11B2-IN-1 inhibits CYP11B1 with an IC ₅₀ of 142 nM ^[1] .	
IC₅₀ & Target	CYP11B2 2.3 nM (IC ₅₀)	CYP11B1 142 nM (IC ₅₀)
In Vitro	CYP11B2-IN-1 (Compound 32) also inhibits CYP19 with an IC ₅₀ of 1021 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	In a rhesus pharmacodynamic model, CYP11B2-IN-1 (Compound 32) produces dose-dependent aldosterone lowering efficacy, with no apparent effect on cortisol levels ^[1] .	

CYP11B2-IN-1 also displays a good rhesus pharmacokinetics profile, with low plasma clearance and acceptable oral exposure. When dosed i.v. at 0.01 and 0.3 mg/kg, CYP11B2-IN-1 produces reductions in aldosterone AUC of 62% and 95%, respectively, compared to baseline^[1].

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

REFERENCES

[1]. Hoyt SB, et al. Discovery of Benzimidazole CYP11B2 Inhibitors with in Vivo Activity in Rhesus Monkeys. ACS Med Chem Lett. 2015 Apr 7;6(5):573-8.

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

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