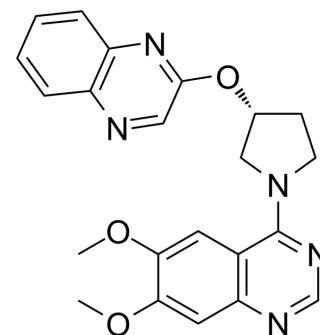


PQ-10

Cat. No.:	HY-18078		
CAS No.:	927691-21-2		
Molecular Formula:	C ₂₂ H ₂₁ N ₅ O ₃		
Molecular Weight:	403.43		
Target:	Phosphodiesterase (PDE)		
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 : 25 mg/mL (61.97 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.4787 mL	12.3937 mL	24.7874 mL
		5 mM	0.4957 mL	2.4787 mL	4.9575 mL
10 mM		0.2479 mL	1.2394 mL	2.4787 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 (6.20 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.20 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	PQ-10 is a potent inhibitor of Phosphodiesterase 10A (PDE10A) with IC ₅₀ and ED ₅₀ of 4.6 nM and 13 mg/kg, respectively. PQ-10 induces patterns of brain glucose metabolism which can be a potential translational biomarker. PQ-10 has the potential for researching psychiatric disorders like schizophrenia ^[1] .
IC₅₀ & Target	PDE10A 4.6 nM (IC ₅₀)
In Vivo	PQ-10 shows region-specific increases in 2-DG uptake in the globus pallidus (equivalent to the external segment of the globus pallidus in primates) and the lateral habenula in mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	24 –28 g male C57BL/6 mice, PDE10A WT and KO mice ^[1]
Dosage:	0.16, 0.63, 2.5, and 10 mg/kg
Administration:	s.c.
Result:	Showed region-specific increases in 2-DG uptake in the globus pallidus (equivalent to the external segment of the globus pallidus in primates) and the lateral habenula in mice.

REFERENCES

[1]. Dedeurwaerdere S, et al. Patterns of brain glucose metabolism induced by phosphodiesterase 10A inhibitors in the mouse: a potential translational biomarker. *J Pharmacol Exp Ther.* 2011;339(1):210-217.

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

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