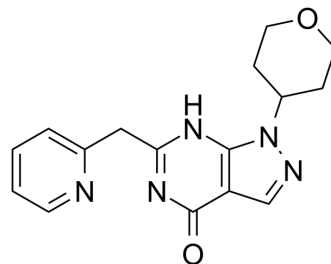


## Osoresnontrine

<b>Cat. No.:</b>	HY-112831		
<b>CAS No.:</b>	1189767-28-9		
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>17</sub> N <sub>5</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	311.34		
<b>Target:</b>	Phosphodiesterase (PDE)		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (80.30 mM); ultrasonic and warming and heat to 60°C				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	3.2119 mL	16.0596 mL	32.1192 mL
		5 mM	0.6424 mL	3.2119 mL	6.4238 mL
10 mM		0.3212 mL	1.6060 mL	3.2119 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (8.03 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.03 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: 2.5 mg/mL (8.03 mM); Clear solution; Need warming</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Osoresnontrine (BI-409306) is a potent and selective PDE9A inhibitor, with an IC <sub>50</sub> of 52 nM, and shows weak activity against other PDEs, such as PDE1A (IC <sub>50</sub> , 1.4 μM), PDE1C (IC <sub>50</sub> , 1.0 μM), PDE2A, PDE3A, PDE4B, PDE5A, PDE6AB, PDE7A, and PDE10A (IC <sub>50</sub> all > 10 μM); Osoresnontrine can be used in the research of memory enhancement in CNS disorders.		
<b>IC<sub>50</sub> &amp; Target</b>	PDE9A 52 nM (IC <sub>50</sub> )	PDE1C 1 μM (IC <sub>50</sub> )	PDE1A 1.4 μM (IC <sub>50</sub> )

## In Vitro

Osoresnontrine is a potent and selective PDE9A inhibitor, with an  $IC_{50}$  of 52 nM, and shows weak activity against other PDEs, such as PDE1A ( $IC_{50}$ , 1.4  $\mu$ M), PDE1C ( $IC_{50}$ , 1.0  $\mu$ M), PDE2A, PDE3A, PDE4B, PDE5A, PDE6AB, PDE7A, and PDE10A ( $IC_{50}$  all > 10  $\mu$ M), and has no obvious effect on 95 non-PDE targets at 10  $\mu$ M. Osoresnontrine enhances long-term potentiation (LTP) in rat hippocampal slices<sup>[1]</sup>.

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

## CUSTOMER VALIDATION

- J Plant Res. 2021 Nov 15.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Cornelia Dorner-Ciossek, et al. BI 409306, a novel phosphodiesterase 9A inhibitor, part I: potency, selectivity and in-vitro functional characterization on synaptic plasticity. International Congress on Schizophrenia Research.

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

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