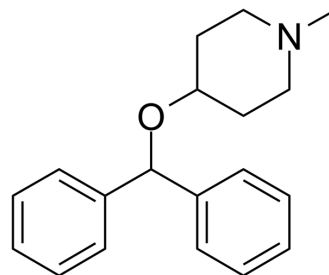


## Diphenylpyraline

<b>Cat. No.:</b>	HY-107431		
<b>CAS No.:</b>	147-20-6		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>23</sub> NO		
<b>Molecular Weight:</b>	281.39		
<b>Target:</b>	Histamine Receptor		
<b>Pathway:</b>	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling		
<b>Storage:</b>	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 (355.38 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.5538 mL	17.7689 mL	35.5379 mL
	5 mM	0.7108 mL	3.5538 mL	7.1076 mL
	10 mM	0.3554 mL	1.7769 mL	3.5538 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (8.88 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: 2.5 mg/mL (8.88 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (8.88 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Diphenylpyraline is a potent histamine H<sub>1</sub> receptor antagonist. Diphenylpyraline acts as an orally active antihistamine agent with antimuscarinic and antiallergic effects. Diphenylpyraline can be used for the research of allergic diseases, including rhinitis and hay fever, and pruritic skin disorders et.al<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

H<sub>1</sub> Receptor

<b>In Vitro</b>	Diphenylpyraline (10 $\mu$ M) markedly inhibits dopamine uptake in mouse nucleus accumbens slices <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
<b>In Vivo</b>	Diphenylpyraline (intraperitoneal injection; 5-10 mg/kg) elevates extracellular dopamine levels (~200%) in mouse nucleus accumbens and induces locomotor activation in mice <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	C57BL/6 mice <sup>[2]</sup>
	Dosage:	5-10 mg/kg
	Administration:	Intraperitoneal injection
	Result:	Had psychostimulant properties.

## REFERENCES

- [1]. Erik B Oleson, et al. Effects of the histamine H<sub>1</sub> receptor antagonist and benztrapine analog diphenylpyraline on dopamine uptake, locomotion and reward.
- [2]. Gennady B Lapa, et al. Diphenylpyraline, a histamine H<sub>1</sub> receptor antagonist, has psychostimulant properties.

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

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