

Product data sheet



MedKoo Cat#: 591255 Name: Diphenylpyraline hydrochloride CAS: 132-18-3 Chemical Formula: C ₁₉ H ₂₄ ClNO Exact Mass: 317.1546 Molecular Weight: 317.857	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Diphenylpyraline hydrochloride is a first-generation antihistamine with anticholinergic effects of the diphenylpiperidine class.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	100.0	314.61
Water	100.0	314.61

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.15 mL	15.73 mL	31.46 mL
5 mM	0.63 mL	3.15 mL	6.29 mL
10 mM	0.31 mL	1.57 mL	3.15 mL
50 mM	0.06 mL	0.31 mL	0.63 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Oleson EB, Ferris MJ, España RA, Harp J, Jones SR. Effects of the histamine H₁ receptor antagonist and benztrapine analog diphenylpyraline on dopamine uptake, locomotion and reward. *Eur J Pharmacol.* 2012 May 15;683(1-3):161-5. doi: 10.1016/j.ejphar.2012.03.003. Epub 2012 Mar 15. PMID: 22445882; PMCID: PMC3340496.

2. Lapa GB, Mathews TA, Harp J, Budygin EA, Jones SR. Diphenylpyraline, a histamine H₁ receptor antagonist, has psychostimulant properties. *Eur J Pharmacol.* 2005 Jan 4;506(3):237-40. doi: 10.1016/j.ejphar.2004.11.017. Epub 2004 Dec 8. PMID: 15627433.

7. Bioactivity

Biological target:

Diphenylpyraline hydrochloride is a potent histamine H₁ receptor antagonist.

In vitro activity

TBD

In vivo activity

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Maximal dopamine uptake inhibition was observed 40 min after DPP (diphenylpyraline) and 30 min after cocaine administration. Post hoc tests revealed that DPP exhibited a prolonged effect on dopamine uptake inhibition in comparison to cocaine. DPP treated mice showed a significantly higher apparent K_m after 40 ($t=3.275$; $P<0.01$), 50 ($t=4.473$; $P<0.01$) and 60 ($t=4.699$; $P<0.01$) min in comparison to cocaine treated mice.

Reference: Eur J Pharmacol. 2012 May 15;683(1-3):161-5. <https://pubmed.ncbi.nlm.nih.gov/22445882/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.