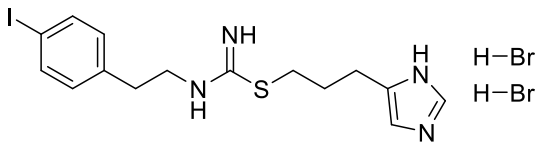
Product data sheet

MedKoo Cat#: 525348 Name: Iodophenpropit Dihydrobromide CAS: 145196-87-8 Chemical Formula: $C_{15}H_{21}Br_2IN_4S$ Molecular Weight: 576.1335	
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:
Iodophenpropit Dihydrobromide is a potent and selective H3 antagonist.

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	50.0	86.79
Water	32.2	55.89

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.74 mL	8.68 mL	17.36 mL
5 mM	0.35 mL	1.74 mL	3.47 mL
10 mM	0.17 mL	0.87 mL	1.74 mL
50 mM	0.04 mL	0.17 mL	0.35 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

1. Hansen KB, Mullasseril P, Dawit S, Kurtkaya NL, Yuan H, Vance KM, Orr AG, Kvist T, Ogden KK, Le P, Vellano KM, Lewis I, Kurtkaya S, Du Y, Qui M, Murphy TJ, Snyder JP, Bräuner-Osborne H, Traynelis SF. Implementation of a fluorescence-based screening assay identifies histamine H3 receptor antagonists clobenpropit and iodophenpropit as subunit-selective N-methyl-D-aspartate receptor antagonists. J Pharmacol Exp Ther. 2010 Jun;333(3):650-62. doi: 10.1124/jpet.110.166256. Epub 2010 Mar 2. PMID: 20197375; PMCID: PMC2879924.
2. Leurs R, Tulp MT, Menge WM, Adolfs MJ, Zuiderveld OP, Timmerman H. Evaluation of the receptor selectivity of the H3 receptor antagonists, iodophenpropit and thioperamide: an interaction with the 5-HT3 receptor revealed. Br J Pharmacol. 1995 Oct;116(4):2315-21. doi: 10.1111/j.1476-5381.1995.tb15071.x. PMID: 8564266; PMCID: PMC1908963.

In vivo study

1. Rodrigues AA, Jansen FP, Leurs R, Timmerman H, Prell GD. Interaction of clozapine with the histamine H3 receptor in rat brain. Br J Pharmacol. 1995 Apr;114(8):1523-4. doi: 10.1111/j.1476-5381.1995.tb14934.x. PMID: 7541279; PMCID: PMC1510403.
2. Jansen FP, Wu TS, Voss HP, Steinbusch HW, Vollinga RC, Rademaker B, Bast A, Timmerman H. Characterization of the binding of the first selective radiolabelled histamine H3-receptor antagonist, [125I]-iodophenpropit, to rat brain. Br J Pharmacol. 1994 Oct;113(2):355-62. doi: 10.1111/j.1476-5381.1994.tb16995.x. PMID: 7834183; PMCID: PMC1510107.

7. Bioactivity
Biological target:

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Iodophenpropit dihydrobromide is a potent and selective histamine H3 receptor antagonist. The binding of [^{125}I]Iodophenpropit is selective, saturable, readily reversible, and of high affinity (K_D 0.32 nM).

In vitro activity

IPP proved to be a potent competitive H3 receptor antagonist as measured against (R)-alpha-methylhistamine-induced inhibition of electrically-evoked contractions of the guinea-pig jejunum (pA2 = 9.12 +/- 0.06, Schild slope: 1.0 +/- 0.1, n = 8).

Reference: Br J Pharmacol. 1995 Oct;116(4):2315-21. https://pubmed.ncbi.nlm.nih.gov/8564266/

In vivo activity

Autoradiographic studies revealed a heterogeneous distribution of [125I]-iodophenpropitbinding sites in rat brain, with highest densities observed in specific cerebral cortical areas and layers,the caudate-putamen complex, the olfactory tubercles, the hippocampal formation, the amygdala complex, the hypothalamic area and the mammillary bodies. It is concluded that the histamine H3-receptor antagonist, [125I]-iodophenpropit, meets the criteria for a suitable radioligand for histamine H3-receptor binding studies in rat brain.

Reference: Br J Pharmacol. 1994 Oct;113(2):355-62. https://pubmed.ncbi.nlm.nih.gov/7834183/