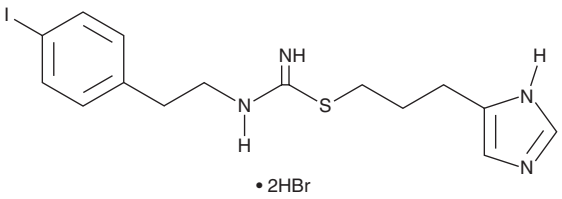
PRODUCT INFORMATION

Iodophenpropit (hydrobromide)

Item No. 32850

CAS Registry No.: 145196-87-8
Formal Name: [2-(4-iodophenyl)ethyl]-carbamimidothioic acid, 3-(1H-imidazol-4-yl)propyl ester, dihydrobromide
MF: $C_{15}H_{19}IN_4S \bullet 2HBr$
FW: 576.1
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Iodophenpropit (hydrobromide) is supplied as a solid. A stock solution may be made by dissolving the iodophenpropit (hydrobromide) in the solvent of choice, which should be purged with an inert gas. Iodophenpropit (hydrobromide) is soluble in organic solvents such DMSO. It is also soluble in water. The solubility of iodophenpropit (hydrobromide) in DMSO and water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Iodophenpropit is a histamine H_3 receptor antagonist (pA_2 = 9.6 in guinea pig intestine, which has a high endogenous expression of H_3 receptors).[1] It increases forskolin-induced cAMP production in SK-N-MC cells expressing the recombinant human H_3 receptor (EC_{50} = 25.1 nM).[2] It is also an inhibitor of NR1/NR2A, NR1/NR2B, NR1/NR2C, and NR1/NR2D subunit-containing NMDA receptors (IC_{50}s = 1.3, 1.4, 9.7, and 14 µM, respectively, for the rat recombinant receptors).[3] Iodophenpropit induces scratching behavior in mice when administered intradermally at a dose of 10 nmol and reduces amygdala-kindled seizure duration in rats (ED_{50} = 2.54 mg/kg).[4,5]

References

1. Jansen, F.P., Wu, T.S., Voss, H.P., *et al.* Characterization of the binding of the first selective radiolabelled histamine H_3-receptor antagonist, [^{125}I]-iodophenpropit, to rat brain. *Br. J. Pharmacol.* **113(2)**, 355-362 (1994).
2. Wieland, K., Bongers, G., Yamamoto, Y., *et al.* Constitutive activity of histamine H_3 receptors stably expressed in SK-N-MC cells: Display of agonism and inverse agonism by H_3 antagonists. *J. Pharmacol. Exp. Ther.* **299(3)**, 908-914 (2001).
3. Hansen, K.B., Mullasseril, P., Dawit, S., *et al.* Implementation of a fluorescence-based screening assay identifies histamine H_3 receptor antagonists clobenpropit and iodophenpropit as subunit-selective N-methyl-D-aspartate receptor antagonists. *J. Pharmacol. Exp. Ther.* **333(3)**, 650-662 (2010).
4. Hossen, M.A., Inoue, T., Shinmei, Y., *et al.* Role of substance P on histamine H_3 antagonist-induced scratching behavior in mice. *J. Pharmacol. Sci.* **100(4)**, 297-302 (2006).
5. Harada, C., Fujii, Y., Hirai, T., *et al.* Inhibitory effect of iodophenpropit, a selective histamine H_3 antagonist, on amygdaloid kindled seizures. *Brain Res. Bull.* **63(2)**, 143-146 (2004).

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