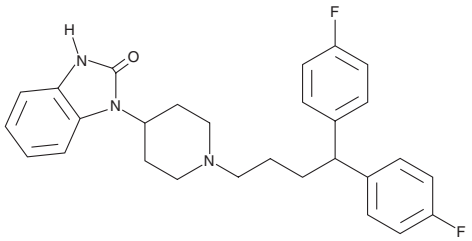
PRODUCT INFORMATION

Pimozide

Item No. 16222

CAS Registry No.:	2062-78-4
Formal Name:	1-[1-[4,4-*bis*(4-fluorophenyl)butyl]-4-piperidinyl]-1,3-dihydro-2H-benzimidazol-2-one
Synonyms:	NSC 170984, R 6238
MF:	$C_{28}H_{29}F_2N_3O$
FW:	461.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 283 nm
Supplied as:	A crystalline 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

Pimozide is supplied as a crystalline solid. A stock solution may be made by dissolving the pimozide in the solvent of choice, which should be purged with an inert gas. Pimozide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pimozide in ethanol is approximately 3 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Pimozide is a dopamine receptor antagonist (K_is = 2.4, 0.3, and 1.8 nM for D_2, D_3, and D_4 receptors, respectively).[1] It also binds to eight additional receptors (K_ds = 25-3,100 nM for the human receptors) and inhibits the voltage-gated sodium channel $Na_v1.2$ and the voltage-gated potassium channel $K_v11.1$ (IC_{50}s = 42 and 340 nM, respectively).[2-4] Pimozide (0.5, 1, and 2 mg/kg) decreases the number of licks and reduces fluid intake of a sweetened solution in rats.[5] It decreases the number of threats and attacks and increases immobility time in the neutral arena aggression test, indicating increased passiveness, in male mice when administered at a dose of 0.75 mg/kg for 10 days.[6] Formulations containing pimozide have been used in the treatment of Tourette syndrome.

References

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3. Roufos, I., Hay, S., and Schwarz, R.D. *J. Med. Chem.* **39(7)**, 1514-1520 (1996).
4. Lau, J.F., Jeppesen, C.B., Rimvall, K., *et al. Bioorg. Med. Chem. Lett.* **16(20)**, 5303-5308 (2006).
5. Xenakis, S. and Sclafani, A. *Pharmacol. Biochem. Behav.* **15(3),** 435-442 (1980).
6. Navarro, J.F., Velasco, R., and Manzaneque, J.M. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **24(1),** 131-142 (2000).

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