

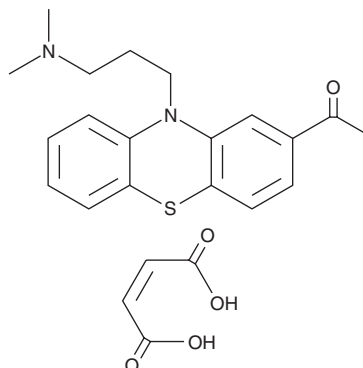
PRODUCT INFORMATION



Acepromazine (maleate)

Item No. 27821

CAS Registry No.: 3598-37-6
Formal Name: 1-[10-[3-(dimethylamino)propyl]-10H-phenothiazin-2-yl]-ethanone, mono-2Z-butenedioate
Synonyms: ACE, Acetylpromazine, NSC 264522
MF: C₁₉H₂₂N₂OS • C₄H₄O₄
FW: 442.5
Purity: ≥98%
UV/Vis.: λ_{max}: 242, 278 nm
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

Acepromazine (maleate) is supplied as a solid. A stock solution may be made by dissolving the acepromazine (maleate) in the solvent of choice, which should be purged with an inert gas. Acepromazine (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of acepromazine (maleate) in these solvents is approximately 2, 3, and 1 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of acepromazine (maleate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of acepromazine (maleate) in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Acepromazine is a phenothiazine antipsychotic, analog of chlorpromazine (Item No. 16129), and a dopamine receptor antagonist.¹ It also binds to muscarinic receptors in rat brain (IC₅₀ = 350 nM) and inhibits contractions of guinea pig ileum induced by acetylcholine (Item No. 23829; IC₅₀ = 840 nM).² Acepromazine inhibits morphine-induced vomiting in dogs.³ It also inhibits development of a conditioned avoidance response, unconditioned escape response, and catalepsy in rats (ED₅₀s = 0.98, 3.1, and 17 mg/kg, respectively).⁴ Formulations containing acepromazine have been used as tranquilizers and anesthetics premedicant in small and large animal veterinary care.

References

1. Monteiro, E.R., Teixeira Neto, F.J., Castro, V.B., *et al.* Effects of acepromazine on the cardiovascular actions of dopamine in anesthetized dogs. *Vet. Anaesth. Analg.* **34(5)**, 312-321 (2007).
2. Fjalland, B., Christensen, A.V., and Hyttel, J. Peripheral and central muscarinic receptor affinity of psychotropic drugs. *Naunyn. Schmiedeberg's Arch. Pharmacol.* **301(1)**, 5-9 (1977).
3. Koh, R.B., Isaza, N., Xie, H., *et al.* Effects of maropitant, acepromazine, and electroacupuncture on vomiting associated with administration of morphine in dogs. *J. Am. Vet. Med. Assoc.* **244(7)**, 820-829 (2014).
4. Arnt, J. Pharmacological specificity of conditioned avoidance response inhibition in rats: Inhibition by neuroleptics and correlation to dopamine receptor blockade. *Acta. Pharmacol. Toxicol. (Copenh).* **51(4)**, 321-329 (1982).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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