

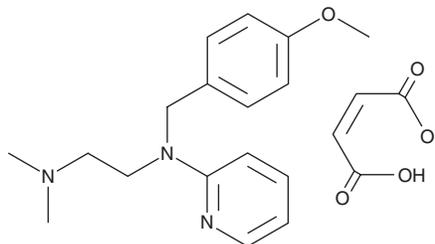
PRODUCT INFORMATION



Mepyramine (maleate)

Item No. 20978

CAS Registry No.: 59-33-6
Formal Name: N¹-[4-methoxyphenyl)methyl]-N²,N²-dimethyl-N¹-2-pyridinyl-1,2-ethanediamine, 2Z-butenedioate
Synonyms: NSC 3604, Pyrilamine
MF: C₁₇H₂₃N₃O • C₄H₄O₄
FW: 401.5
Purity: ≥95%
UV/Vis.: λ_{max}: 245, 306 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

Mepyramine (maleate) is supplied as a crystalline solid. A stock solution may be made by dissolving the mepyramine (maleate) in the solvent of choice. Mepyramine (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of mepyramine (maleate) in ethanol and DMSO is approximately 20 mg/ml and approximately 25 mg/ml in DMF.

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 mepyramine (maleate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of mepyramine (maleate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Mepyramine is a first generation antihistamine that acts as an inverse agonist at the histamine H₁ receptor. It is reported to bind with high affinity to a G_{q/11} protein-coupled form of the receptor and to promote a G protein-coupled inactive state of the H₁ receptor that interferes with the G_{q/11}-mediated signaling of the endogenously expressed receptor, as well as to reduce G protein availability for other non-related receptors associated with this signaling pathway.¹ Mepyramine has been shown to inhibit histamine-induced inositol phosphate production with a log EC₅₀ value of -7.94.¹

Reference

1. Fitzsimons, C.P., Monczor, F., Fernández, N., *et al.* Mepyramine, a histamine H₁ receptor inverse agonist, binds preferentially to a G protein-coupled form of the receptor and sequesters G protein. *J. Biol. Chem.* **279**(33), 34431-34439 (2004).

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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