

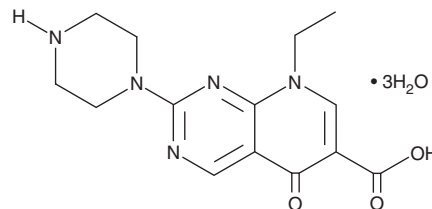
PRODUCT INFORMATION



Pipemidic Acid (hydrate)

Item No. 33719

CAS Registry No.: 72571-82-5
Formal Name: 8-ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)-pyrido[2,3-d]pyrimidine-6-carboxylic acid, trihydrate
MF: C₁₄H₁₇N₅O₃ • 3H₂O
FW: 357.4
Purity: ≥98%
UV/Vis.: λ_{max}: 280 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

Pipemidic acid (hydrate) is supplied as a solid. A stock solution may be made by dissolving the pipemidic acid (hydrate) in the solvent of choice, which should be purged with an inert gas. Pipemidic acid (hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of pipemidic acid (hydrate) in these solvents is approximately 1 and 0.50 mg/ml, respectively.

Pipemidic acid (hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pipemidic acid (hydrate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Pipemidic acid (hydrate) has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pipemidic acid is an antibiotic and derivative of piromidic acid (Item No. 19255).¹ It is active against clinical isolates of *E. coli*, *P. mirabilis*, *P. inconstans*, *Shigella*, *Salmonella*, *Alcaligenes*, and *V. parahaemolyticus* (MICs = 0.78-100 µg/ml), as well as drug-resistant clinical isolates of *E. coli*, *P. mirabilis*, *Klebsiella*, and *Shigella* (MICs = 1.56-6.25 µg/ml). Pipemidic acid is protective against systemic *S. aureus*, *E. coli*, *K. pneumoniae*, and *P. aeruginosa* infections in mice (ED₅₀s = 237.5, 204.1, 28.6, and 99.5 mg/kg, respectively).² It is also protective against *P. aeruginosa*-induced pulmonary and dermal infections (ED₅₀s = 81.7 and 173.2 mg/kg, respectively), as well as *E. coli*, *K. pneumoniae*, and *P. aeruginosa* urinary bladder infections (ED₅₀s = 4.8, 11.9, and 30.6 mg/kg, respectively), in mice.

References

1. Shimizu, Y., Takase, Y., Nakamura, S., et al. Pipemidic acid, a new antibacterial agent active against *Pseudomonas aeruginosa*: In vitro properties. *Antimicrob. Agents Chemother.* **8**(2), 132-138 (1975).
2. Shimizu, M., Takdase, Y., Nakamura, S., et al. Pipemidic acid: Its activities against various experimental infections. *Antimicrob. Agents Chemother.* **9**(4), 569-574 (1976).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM