

PRODUCT INFORMATION



Fosfomycin Trometamol

Item No. 23632

CAS Registry No.: 78964-85-9
Formal Name: P-[(2R,3S)-3-methyl-2-oxiranyl]-phosphonic acid compound with 2-amino-2-(hydroxymethyl)-1,3-propanediol
Synonym: Fosfomycin Tromethamine
MF: $C_4H_{11}NO_3 \cdot C_3H_7O_4P$
FW: 259.2
Purity: $\geq 98\%$
Supplied as: A solid
Storage: 4°C
Stability: ≥ 2 years



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

Laboratory Procedures

Fosfomycin trometamol is supplied as a solid. A stock solution may be made by dissolving the fosfomycin trometamol in the solvent of choice, which should be purged with an inert gas. Fosfomycin trometamol is slightly soluble in methanol.

Fosfomycin trometamol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Fosfomycin trometamol is a broad-spectrum antibiotic that is active against Gram-negative and Gram-positive bacteria with MIC_{90} values of 8, 32, 4, and 32 $\mu\text{g/mL}$ for ESBL *E. coli*, carbapenemase-producing *K. pneumoniae*, *P. mirabilis*, and methicillin-resistant *S. saprophyticus*, respectively, in a broth microdilution assay.¹ It is an inhibitor of uridine diphospho-N-acetyl-D-glucosamine enolpyruvyl transferase (MurA) that enters cells via the glycerol-3-phosphate and hexose-6-phosphate transporters.^{2,3} Formulations containing fosfomycin trometamol have been used in the treatment of urinary tract infections.

References

1. Mezzatesta, M.L., La Rosa, G., Maugeri, G., *et al.* In vitro activity of fosfomycin trometamol and other oral antibiotics against multi-drug-resistant uropathogens. *Int. J. Antimicrob. Agents* **49(6)**, 763-766 (2017).
2. Kahan, F.M., Kahan, J.S., Cassidy, P.J., *et al.* The mechanism of action of fosfomycin (phosphonomycin). *Ann. N.Y. Acad. Sci.* **235(0)**, 364-386 (1974).
3. Santoro, A., Cappello, A.R., Madeo, M., *et al.* Interaction of fosfomycin with the glycerol 3-phosphate transporter of *Escherichia coli*. *Biochim Biophys. Acta.* **1810(12)**, 1323-1329 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/15/2022

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