

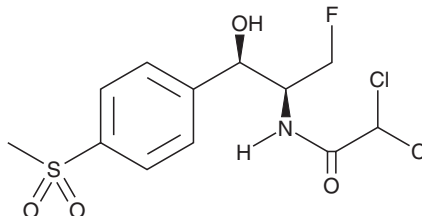
PRODUCT INFORMATION



Florfenicol

Item No. 19458

CAS Registry No.: 73231-34-2
Formal Name: 2,2-dichloro-N-[(1S,2R)-1-(fluoromethyl)-2-hydroxy-2-[4-(methylsulfonyl)phenyl]ethyl]-acetamide
Synonym: SCH 25298
MF: C₁₂H₁₄Cl₂FNO₄S
FW: 358.2
Purity: ≥98%
UV/Vis.: λ_{max}: 224 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

Florfenicol is supplied as a crystalline solid. A stock solution may be made by dissolving the florfenicol in the solvent of choice, which should be purged with an inert gas. Florfenicol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of florfenicol in these solvents is approximately 14, 50, and 30 mg/ml, respectively.

Florfenicol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, florfenicol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Florfenicol has a solubility of approximately 0.03 mg/ml in a 1:30 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Florfenicol is a broad-spectrum fluorinated antibiotic and a derivative of thiamphenicol (Item No. 21357).¹ It is active against human clinical isolates of enteric bacteria, including *E. coli*, *Klebsiella*, *Enterobacter*, *Citrobacter*, *P. mirabilis*, and *Salmonella* (MIC_{50S} = 6.3-12.5 µg/ml).² Florfenicol is also active against clinical isolates of various bovine and porcine respiratory tract pathogens, including *P. multocida*, *A. pleuropneumoniae*, and *B. bronchiseptica* (MIC_{50S} = 0.25-4 µg/ml).³ It inhibits peptidyl transferase activity in 70S ribosomes isolated from *E. coli* when used at a concentration of 1 mM.¹ Formulations containing florfenicol have been used in the treatment of infectious respiratory disease in cattle.

References

1. Cannon, M., Harford, S., and Davies, J. A comparative study on the inhibitory actions of chloramphenicol, thiamphenicol and some fluorinated derivatives. *J. Antimicrob. Chemother.* **26(3)**, 307-317 (1990).
2. Neu, H.C. and Fu, K.P. In vitro activity of chloramphenicol and thiamphenicol analogs. *Antimicrob. Agents Chemother.* **18(2)**, 311-316 (1980).
3. Priebe, S. and Schwarz, S. In vitro activities of florfenicol against bovine and porcine respiratory tract pathogens. *Antimicrob. Agents Chemother.* **47(8)**, 2703-2705 (2003).

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