Thiamphenicol
Item No. 21357

CAS Registry No.: 15318-45-3
Formal Name: 2,2-dichloro-N-[(1R,2R)-2-hydroxy-1-(hydroxymethyl)-2-[4-(methylsulfonyl)phenyl]ethyl]-acetamide
Synonyms: NSC 522822, (+)-Thiamphenicol, Thiophenicol, WIN 5,603-2
MF: C₁₂H₁₅Cl₂NO₅S
FW: 356.2
Purity: ≥98%
UV/Vis.: λ_max: 225, 266 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Thiamphenicol is supplied as a crystalline solid. A stock solution may be made by dissolving the thiamphenicol in the solvent of choice. Thiamphenicol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of thiamphenicol in ethanol is approximately 200 µg/ml and approximately 30 mg/ml in DMSO and DMF.

Thiamphenicol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, thiamphenicol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Thiamphenicol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Thiamphenicol is an antibiotic derived from chloramphenicol that displays a similar spectrum of activity with enhanced potency.¹-³ It displays good in vitro activity against a range of multidrug resistant pathogens, including penicillin-resistant strains and methicillin-resistant S. aureus.²

References