

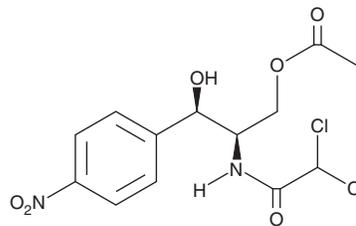
# PRODUCT INFORMATION



## Chloramphenicol Acetate

Item No. 23811

**CAS Registry No.:** 10318-16-8  
**Formal Name:** N-[(1R,2R)-1-[(acetyloxy)methyl]-2-hydroxy-2-(4-nitrophenyl)ethyl]-2,2-dichloro-acetamide  
**MF:** C<sub>13</sub>H<sub>14</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>6</sub>  
**FW:** 365.2  
**Purity:** ≥97%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** *Streptomyces* sp.



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

### Laboratory Procedures

Chloramphenicol acetate is supplied as a solid. A stock solution may be made by dissolving the chloramphenicol acetate in the solvent of choice, which should be purged with an inert gas. Chloramphenicol acetate is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide. In acidic solution, migration of the acetate to the benzylic alcohol can occur.<sup>1</sup>

Chloramphenicol acetate 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

Chloramphenicol acetate is an acetylated and inactive version of chloramphenicol.<sup>2</sup> It is formed in *E. coli* and *S. aureus* by the inducible enzyme chloramphenicol acetyltransferase in the presence of acetyl coenzyme A (acetyl-CoA; Item No. 16160) to confer chloramphenicol resistance. Chloramphenicol acetate has no antibiotic activity against *S. sonnei* in a turbidimetric assay.

### Reference

1. Fodor, G., Toth, J., Kovacs, E., *et al.* Synthesis of chloramphenicol. *Russian Chemical Bulletin* **4**, 391-399 (1995).
2. Shaw, W.V. and Brodsky, R.F. Characterization of chloramphenicol acetyltransferase from chloramphenicol-resistant *Staphylococcus aureus*. *J. Bacteriol.* **95**(1), 28-36 (1968).

#### 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, 12/21/2022

#### 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