

PRODUCT INFORMATION



Ischlortetracycline

Item No. 22125

CAS Registry No.: 514-53-4
Formal Name: (4S,4aS,6S,8aS)-6-[(1S)-7-chloro-1,3-dihydro-4-hydroxy-1-methyl-3-oxo-1-isobenzofuranyl]-4-(dimethylamino)-1,4,4a,5,6,7,8,8a-octahydro-3,8a-dihydroxy-1,8-dioxo-2-naphthalenecarboxamide

Synonyms: 7-Chloroisotetracycline, Isoaureomycin

MF: C₂₂H₂₃ClN₂O₈

FW: 478.9

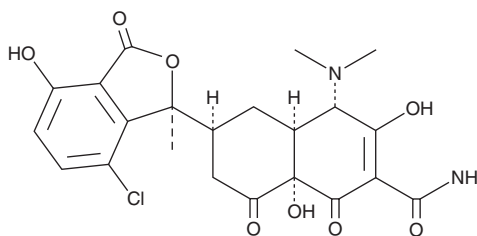
Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Synthetic



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

Laboratory Procedures

Ischlortetracycline is supplied as a solid. A stock solution may be made by dissolving the ischlortetracycline in the solvent of choice, which should be purged with an inert gas. Isochlortetracycline is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

Description

Ischlortetracycline is an inactive alkaline degradation product of the broad-spectrum antibiotic chlortetracycline.^{1,2} This molecule appears to be a product of *in vivo* chlortetracycline metabolism with epimerization rates exceeding >50%, and high levels can be detected in the yolks of eggs from chickens exposed to this antibiotic.³ Isochlortetracycline is used as a reference standard in chromatographic analyses of chlortetracycline and its metabolic derivatives.²

References

1. Collett, J.H., Collett, C., Martin, A.N., *et al.* The effects of some tetracyclines on synchronously growing cultures of *Escherichia coli* B/r. *J. Pharm. Pharmacol.* **22(9)**, 672-678 (1970).
2. Diana, J., Vandenbosch, L., De Spiegeleer, B., *et al.* Evaluation of the stability of chlortetracycline in granular premixes by monitoring its conversion into degradation products. *J. Pharm. Biomed. Anal.* **39(3-4)**, 523-530 (2005).
3. Zurhelle, G., Petz, M., Mueller-Seitz, E., *et al.* Metabolites of oxytetracycline, tetracycline, and chlortetracycline and their distribution in egg white, egg yolk, and hen plasma. *J. Agric. Food Chem.* **48(12)**, 6392-63936 (2000).

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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