

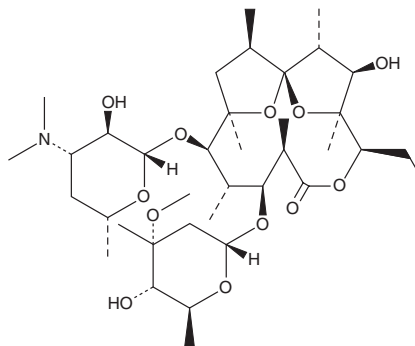
PRODUCT INFORMATION



Anhydroerythromycin A

Item No. 27960

CAS Registry No.: 23893-13-2
Formal Name: 9-deoxo-6,12-dideoxy-6,9:9,12-diepoxy-erythromycin
Synonyms: BRL 46355ER, Erythromycin Anhydride
MF: C₃₇H₆₅NO₁₂
FW: 715.9
Purity: ≥98%
Supplied as: A 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

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

Description

Anhydroerythromycin A is a degradation product of the macrolide antibiotic erythromycin (Item No. 16486).^{1,2} It is formed *via* degradation of erythromycin in acidic aqueous solutions *in vitro* as well as *in vivo*. Anhydroerythromycin A is active against *S. aureus* and *B. cereus in vitro* (MICs = 12.5 and 6.25 µg/ml, respectively).³ It also inhibits steroid 6β-hydroxylase activity associated with the cytochrome P450 (CYP) isoform CYP3A in human liver microsomes.⁴

References

1. Cachet, T., Van den Mooter, G., Hauchecorne, R., *et al.* Decomposition kinetics of erythromycin A in acidic aqueous solutions. *Int. J. Pharm.* **55(1)**, 59-65 (1989).
2. Hassanzadeh, A., Helliwell, M., and Barber, J. Determination of the stereochemistry of anhydroerythromycin A, the principal degradation product of the antibiotic erythromycin A. *Org. Biomol. Chem.* **4(6)**, 1014-1019 (2006).
3. Sunazuka, T., Takizawa, H., Desaki, M., *et al.* Effects of erythromycin and its derivatives on interleukin-8 release by human bronchial epithelial cell line BEAS-2B cells. *J. Antibiot. (Tokyo)*. **52(1)**, 71-74 (1999).
4. Stupans, I. and Sansom, L.N. The inhibition of drug oxidation by anhydroerythromycin, an acid degradation product of erythromycin. *Biochem. Pharmacol.* **42(11)**, 2085-2090 (1991).

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, 10/05/2022

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