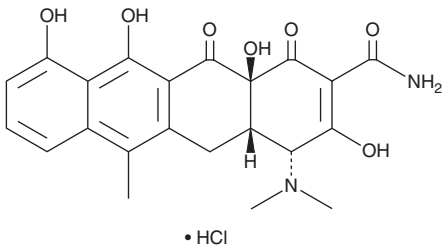
PRODUCT INFORMATION

Epianhydrotetracycline (hydrochloride)

Item No. 27954

CAS Registry No.: 4465-65-0
Formal Name: (4R,4aS,12aS)-4-(dimethylamino)-1,4,4a,5,12,12a-hexahydro-3,10,11,12a-tetrahydroxy-6-methyl-1,12-dioxo-2-naphthacenecarboxamide, monohydrochloride
Synonym: EATC
MF: $C_{22}H_{22}N_2O_7$ • HCl
FW: 462.9
Purity: ≥90%
UV/Vis.: λ_{max}: 224, 273, 426 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

Epianhydrotetracycline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the epianhydrotetracycline (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Epianhydrotetracycline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of epianhydrotetracycline (hydrochloride) in these solvents is approximately 2, 20, and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of epianhydrotetracycline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of epianhydrotetracycline (hydrochloride) in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Epianhydrotetracycline (EATC) is a degradation product of the antibiotic tetracycline (Item No. 14328).[1] EATC is active against *Pseudomonas*, *Agrobacterium*, *Moraxella*, *Bacillus*, and *E. coli* (MIC_{50}s = 0.75-16 mg/L).

Reference

1. Halling-Sørensen, B., Sengeløv, G., and Tjørnelund, J. Toxicity of tetracyclines and tetracycline degradation products to environmentally relevant bacteria, including selected tetracycline-resistant bacteria. *Arch. Environ. Contam. Toxicol.* **42(3),** 263-271 (2002).

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