4-epi-Chlortetracycline (hydrochloride)

CAS Registry No.: 101342-45-4
Formal Name: (4R,6S)-7-chloro-4-(dimethylamino)-1,4,4aS,5,5aS,6,11,12a-octahydro-3,6,10,12,12aS-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide, monohydrochloride
Synonym: 7-chloro-2-Naphthacenecarboxamide
MF: C_{22}H_{23}ClN_{2}O_{8} • HCl
FW: 515.3
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_{max}^\text{max}: 235, 255, 375 nm

Laboratory Procedures

For long term storage, we suggest that 4-epi-chlortetracycline (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

4-epi-Chlortetracycline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-epi-chlortetracycline (hydrochloride) in the solvent of choice. 4-epi-Chlortetracycline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 4-epi-chlortetracycline (hydrochloride) in these solvents is approximately 2, 20, and 12 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 4-epi-chlortetracycline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 4-epi-chlortetracycline (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.

Chlortetracycline is an analog of tetracycline (Item No. 14328), a broad spectrum antibiotic. In addition to its actions against microorganisms, chlortetracycline suppresses inflammation by inhibiting neutrophil action and other aspects of the innate immune response. 1,4 4-epi-Chlortetracycline is an epimer of chlortetracycline.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16663

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to your institution.

WARRANTY AND LIMITATION OF REMEDY
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog. Copyright Cayman Chemical Company, 10/24/2014