

Product Information

Doxycycline Hyclate

Catalog Number D5207, Cell-Culture grade

Storage Temperature 2 - 8 °C

CAS RN: **24390-14-5**

Synonyms: **Doxycycline hydrochloride hemiethanolate hemihydrate**

Product Description

Molecular Formula: $C_{22}H_{24}N_2O_8 \cdot HCl \cdot 0.5H_2O \cdot 0.5C_2H_6O$

Molecular Weight: 512.94

pKa: 1 3.5, 7.7, 9.5 (20 °C)

Melting Point: -201 °C

λ_{max} : 351 nm, 267 nm

Extinction Coefficient: $EmM = 13.2$ (351 nm), 17.4 (267 nm) (10 mM HCl in methanol)

Specific Rotation: $2 -110^\circ$ (10 mg/ml, 10 mM HCl in methanol)

Doxycycline is a relative of tetracycline often used in culture at a concentration of 0.1-10 $\mu\text{g/ml}$. This is the range of concentrations the product D5207 is tested for suitability on HeLa cells.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product is soluble in water (50 mg/ml), and in DMSO (10 mg/ml) yielding a clear solution.

Mild warming may be required to fully dissolve the material.

This product is also reported to be soluble in methanol, sparingly soluble in ethanol, and insoluble in chloroform or ether.

Storage/Stability

Solutions in sodium chloride or glucose should be used within 48 hours of preparation and protected from direct sunlight.³ Solutions should be stored at 2–8 °C.

References

1. Clarke 's Isolation and Identification of Drugs, 2nd Ed., p. 575.
2. The Merck Index, 10th ed., Entry# 3436
3. Martindale The Extra Pharmacopoeia, 30th ed, 160 (1993).
4. Review paper: Patel RS, Parmar M. Doxycycline Hyclate. [Updated 2020 Dec 2].

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