Technical Data Sheet

Doxycycline hyclate

Catalog Number :2431450

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: alpha 6 Deoxyoxytetracycline, Atridox, Hydramycin, Doxycycline hydrochloride hemiethanolatehemihydrate

Chemical Name: (4S,4aR,5S,5aR,6R,12aR)-4-(dimethylamino)-1,5,10,11,12a-pentahydroxy-6-methyl-3,12-dioxo-4a,5,5a,6-tetrahydro-4H-tetracene-2-carboxamide;ethanol;hydrate;dihydrochloride

Molecular Formula: 2 x [$C_{22}H_{24}N_2O_8$ 2HCl]

H_2O C_2H_6O

Molecular Weight: 1025.9

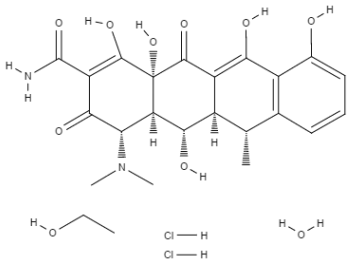
CAS Number: 24390-14-5

Purity: ≥98%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Doxycycline is a synthetic oxytetracycline broad-spectrum antibiotic, used to treat a variety of infections such as Lyme disease, Rickettsia, Brucella melitensis, Chlamydia pneumoniae, and others. It is also an inhibitor of matrix metalloproteases and useful in regulating inducible gene expression in Tet-ON/Off systems.

Preparation & Storage

Soluble in organic solvents such as DMSO or DMF.

References

1.Kistner, A., Gossen, M., Zimmermann, F., Jerecic, J., Ullmer, C., Lübbert, H., Bujard, H. (1996). Doxycycline-mediated quantitative and tissue-specific control of gene expression in transgenic mice.;Proceedings of the National Academy of Sciences,;93(20), 10933-10938.

2. Nadelman, R. B., Nowakowski, J., Fish, D., Falco, R. C., Freeman, K., McKenna, D., ... Wormser, G. P. (2001). Prophylaxis with single-dose doxycycline for the prevention of Lyme disease after an Ixodes scapularis tick bite.;New England Journal of Medicine,;345(2), 79-84.

3. Hanemaaijer, R., Visser, H., Koolwijk, P., Sorsa, T., Salo, T., Golub, L. M., Van Hinsbergh, V. W. M. (1998). Inhibition of MMP synthesis by doxycycline and chemically modified tetracyclines (CMTs) in human endothelial cells.Advances in Dental Research,;12(1), 114-118.

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