Minocycline hydrochloride

Product Number M 9511
Storage Temperature 2-8 °C

Product Description

Molecular Formula: C_{23}H_{27}N_{3}O_{7} \cdot \text{HCl}
Molecular Weight: 493.9
CAS Number: 13614-98-7
Synonyms: [4S-(4α,4aα,5,5α,12α)]-4,7-bis(dimethylamino)-14,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacenecarboxamide; 7-dimethylamino-6-demethyl-6-deoxytetracycline

Minocycline is a semi-synthetic tetracycline derivative that has a spectrum of antibacterial activity similar to tetracycline. It is active against streptococci, enterobacteria, and some mycobacteria, and also against such species as Staphylococcus aureus, Neisseria meningitidis, Acinetobacter, Bacteroides, Haemophilus, and Nocardia. Minimum inhibitory concentrations (MIC) can range from 0.06 - 1 µg/ml for the most sensitive organisms, and from 4 - 12.5 µg/ml for moderately sensitive organisms. A detailed review of minocycline has been published.

Minocycline has been shown to inhibit tumor growth in transgenic mice, in combination with AGM-1470 and interferon α/β. Minocycline has also been demonstrated to inhibit angiogenesis in rabbit cornea in the presence of the VX2 carcinoma. The inhibitory activity of minocycline against several metalloproteinases has been studied.

An HPLC assay for the analysis of minocycline in serum and tissue has been published.

Preparation Instructions

This product is soluble water (50 mg/ml), with heat as needed, yielding a clear, yellow to amber solution. It is also soluble in DMSO (7 mg/ml).

Storage/Stability

Stock solutions of this product (1 mg/ml, 0.1 N HCl) may be stored for two days at 4 °C.

References

1. The Merck Index, 12th ed., Entry# 1188.

Precautions and Disclaimer

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