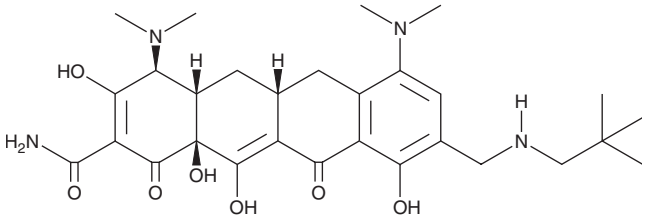
PRODUCT INFORMATION

Omadacycline

Item No. 24932

CAS Registry No.:	389139-89-3
Formal Name:	4,7-*bis*(dimethylamino)-9-[[(2,2-dimethylpropyl)amino]methyl]-1,4S,4aS,5,5aR,6,11,12aS-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacenecarboxamide
Synonyms:	Amadacycline, BAY 73-7388, MK-2764
MF:	$C_{29}H_{40}N_4O_7$
FW:	556.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 253, 350 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

Omadacycline is supplied as a crystalline solid. A stock solution may be made by dissolving the omadacycline in the solvent of choice, which should be purged with an inert gas. Omadacycline is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of omadacycline in these solvents is approximately 1 mg/ml. Omadacycline is slightly soluble in ethanol.

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 omadacycline can be prepared by directly dissolving the crystalline solid in aqueous buffers. Omadacycline is slightly soluble in PBS (pH 7.2). For maximum solubility in aqueous buffers, omadacycline should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Omadacycline has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Omadacycline is an aminomethylcycline antibiotic.[1] It is active against tetracycline-susceptible and -resistant strains of *S. aureus*, *E. faecalis*, *E. faecium*, *S. pneumoniae*, and *E. coli*, as well as β-hemolytic streptococci (MICs = ≤0.06-2 µg/ml). Omadacycline increases survival in mouse models of systemic infection with tetracycline-sensitive and -resistant strains of *S. pneumoniae*, *S. aureus*, or *E. coli* (ED_{50}s = 0.3-3.34 mg/kg). Formulations containing omadacycline have been used in the treatment of community-acquired bacterial pneumonia (CABP) and acute bacterial skin and skin structure infections (ABSSSI).

Reference

1. Macone, A.B., Caruso, B.K., Leahy, R.G., *et al. In vitro* and *in vivo* antibacterial activities of omadacycline, a novel aminomethylcycline. *Antimicrob. Agents Chemother.* **58(2)**, 1127-1135 (2014).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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