

Product Name:	Minocycline
Product Number:	M062
CAS Number:	10118-90-8
Molecular Formula:	$C_{23}H_{27}N_3O_7$
Molecular Weight:	457.5
Appearance:	Yellow to orange solid
Storage Conditions:	-20°C
Description:	<p>Minocycline is a semi-synthetic tetracycline prepared by sequential hydrogenolysis, nitration and reductive methylation. Minocycline, together with doxycycline, is regarded as a "third generation" tetracycline largely replacing the natural products and pro-drugs produced in the early 1950s for mainstream antibiotic applications. Like all tetracyclines, minocycline shows broad spectrum antibacterial and antiprotozoan activity. Minocycline has been extensively cited in the literature with over 5,000 references.</p> <p>Minocycline is soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.</p>
Mechanism of Action:	Minocycline acts by binding to the 30S and 50S ribosomal sub-units, blocking protein synthesis.
References:	<p>The 6-deoxytetracyclines. VII. Alkylated aminotetracyclines possessing unique antibacterial activity. Martel M.J. & Boothe J.H. J. Med. Chem. 1967, 10, 44.</p> <p>Synthesis of 7-dimethylamino-6-demethyl-6-deoxytetracycline (minocycline) via 9-nitro-6-demethyl-6-deoxytetracycline. Church R.F.R. et al. J. Org. Chem. 1971, 36, 723.</p>