

<b>Product Name:</b>	Methacycline
<b>Product Number:</b>	M051
<b>CAS Number:</b>	914-00-1
<b>Molecular Formula:</b>	$C_{22}H_{22}N_2O_8$
<b>Molecular Weight:</b>	442.4
<b>Appearance:</b>	Yellow to orange solid
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	<p>Methacycline is a semi-synthetic tetracycline prepared by dehydration of the 6-hydroxy group of oxytetracycline to yield an exocyclic 6-methylene. Like all tetracyclines, methacycline shows broad spectrum antibacterial and antiprotozoan activity. Methacycline has been extensively cited in the literature with over 400 references.</p> <p>Methacycline is soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.</p>
<b>Mechanism of Action:</b>	Like all tetracyclines, methacycline acts by binding to the 30S and 50S ribosomal subunits, blocking protein synthesis.
<b>References:</b>	<p>6-Methylenetetracyclines. I A new class of tetracycline antibiotics. Blackwood R.K. et al. J. Am. Chem. Soc. 1961, 83, 2773.</p> <p>6-Methylenetetracyclines. III. Preparation and Properties. Blackwood R.K. et al. J. Am. Chem. Soc. 1963, 85, 3943.</p> <p>A comparison of the in vitro and in vivo activity of methacycline and other tetracycline compounds. Chang T.W. &amp; Weinstein L. Antibiot. Chemother. 1962, 12, 676.</p> <p>Evaluation of methacycline, a new analogue of oxytetracycline. Limson B.M. &amp; Guevara R. Curr. Ther. Res. Clin. Exp. 1963, 5, 249.</p>