

Product Name:	Monensin A
Product Number:	M067
CAS Number:	17090-79-8
Molecular Formula:	$C_{36}H_{62}O_{11}$
Molecular Weight:	670.8
Appearance:	White solid
Storage Conditions:	-20°C
Description:	<p>Monensin A is a polyether antibiotic first isolated from <i>Streptomyces cinnamomensis</i> in 1967. Monensin A is a broad-spectrum anticoccidial antibiotic, also exhibiting antifungal and antiviral activity. Monensin A blocks intracellular protein transport and is used in animals to prevent coccidiosis, promote growth and prevent bloat. Derivatives of monensin, monensin methyl ester and particularly monensin decyl ester, are used in ion selective electrodes.</p> <p>Monensin A is soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</p>
Mechanism of Action:	<p>Monensin A forms complexes with monovalent cations such as Li^+, Na^+, K^+, Rb^+, Ag^+ and Tl^+ and is thus able to transport these cations across lipid membranes of cells, playing an important role as an Na^+/H^+ antiporter.</p>
References:	<p>Structure of monensic acid, a new biologically active compound. Agtarap A. et al. <i>J. Am. Chem. Soc.</i> 1967, 89, 5737.</p> <p>Molecular structure of monovalent metal cation complexes of monensin. Pinkerton M. et al. <i>J. Mol. Biol.</i> 1970, 48, 533</p>