

Product Name:	Monactin
Product Number:	M065
CAS Number:	7182-54-9
Molecular Formula:	C ₄₁ H ₆₆ O ₁₂
Molecular Weight:	751.0
Appearance:	Colourless Film
Storage Conditions:	-20°C
Description:	<p>Monactin is a member of the macrotetrolide complex produced by a range of <i>Streptomyces</i> species. Monactin has not previously been available for intensive investigation. Early literature reported that the related dinactin is a monovalent cation ionophore with high selectivity for ammonium and potassium. Monactin inhibits T-cell proliferation induced by IL-2 and cytokine production at nanomolar levels for IL-2, IL-4, IL-5 and IFN-γ.</p> <p>Monactin is soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</p>
References:	<p>Effects of cyclosporin A and dinactin on T-cell proliferation, interleukin-5 production, and murine pulmonary inflammation. Umland S. P., et al. , Am. J. Respir. Cell Mol. Biol., 1999, 20, 481.</p> <p>Immunosuppressive effects of polynactins (tetranactin, trinactin and dinactin) on experimental autoimmune uveoretinitis in rats. Tanouchi Y., et al. , Jpn. J. Ophthalmol., 1987, 31, 218.</p> <p>Antibiotics as tools for metabolic studies. VI. Damped oscillatory swelling of mitochondria induced by nonactin, monactin, dinactin, and trinactin. Graven S. N., et al. , Biochemistry, 1966, 5, 1735.</p>