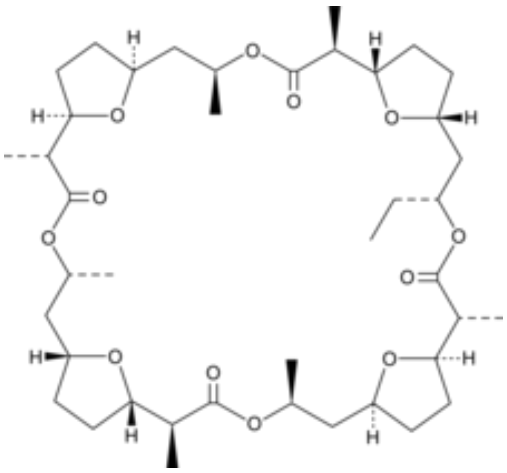
Product Data Sheet

Product Name: Monactin
Cat. No.: GC40613

Chemical Properties

Cas. No.	7182-54-9		
SMILES	O=C(O[C@H](C)C[C@]1([H])O[C@@]([C@@H]2C)([H])CC1)[C@H](C)[C@@]3([H])CC[C@](C[C@H](C)OC([C@H]([C@@]4([H])O[C@](C[C@H](OC([C@H](C)[C@]5([H])O[C@](CC5)([H])C[C@H](C)OC2=O)=O)CC)([H])CC4)C)=O)([H])O3		
Formula	C41H66O12	M.Wt	751
Solubility	DMF: Soluble,DMSO: Soluble,Ethanol: Soluble,Methanol: soluble	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Monactin is a mactrotetralide antibiotic originally isolated from Streptomyces and a non-selective ionophore for monovalent cations, including potassium, sodium, and lithium. It has low antimicrobial

activity but is more active than its homolog nonactin . Monactin induces swelling of rat liver mitochondria in medium containing either potassium or sodium, stimulates respiration, and uncouples oxidative phosphorylation. It also inhibits Wnt signaling via inhibition of TCF-β-catenin transcriptional activity.