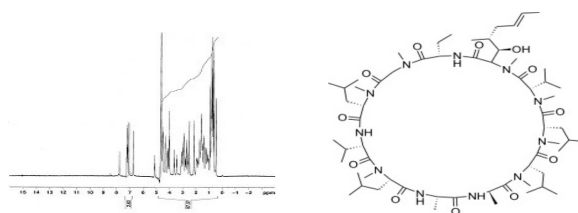


Product Name:	Cyclosporin C, EvoPure®
Product Number:	C044
CAS Number:	59787-61-0
Molecular Formula:	$C_{62}H_{111}N_{11}O_{13}$
Molecular Weight:	1218.6 g/mol
Form:	Powder
Appearance:	Colorless prismatic needle
Source:	<i>Tolypocladium Inflatum</i>
Water Content (Karl Fischer):	3.0%
Melting Point:	152-155 °C
Storage Conditions:	-20 °C
Description:	<p>Cyclosporin C is a hydroxylated metabolite of cyclosporin A (CsA). Cyclosporin C has been found to have similar immunosuppressant activity, but lower nephrotoxicity than cyclosporin A (CsA). Cyclosporin C has also been found to have antimycotic properties.</p> <p>For more cyclosporin products, click here.</p>
Mechanism of Action:	<p>Cyclosporin C (and other cyclosporin A (CsA) metabolites) have lower immunosuppressant activity but most likely operate under the same mechanism as cyclosporin A (CsA) described below.</p> <p>Cyclosporin A (CsA) immunosuppressant activity stems from its ability to prevent T-cell activation by blocking specific cytokine transcription genes. After entering a T-cell, cyclosporin A (CsA) associates with ubiquitous cytosolic proteins called cyclophilins which aid in protein folding. Cyclosporin A (CsA) : cyclophilin complexes together bind calcineurin, (another cytosolic protein) effectively blocking the pathway to IL-2 gene transcription and T-cell activation.</p>
Cancer Applications	Cyclosporin metabolites can be used to study toxicity and immunosuppressant activity in various in vitro assays and experiments.

Technical Data:

HNMR Spectra



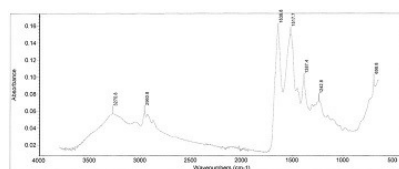
[Click to enlarge](#)

Solvent: DMSO

Instrument: Varian 300

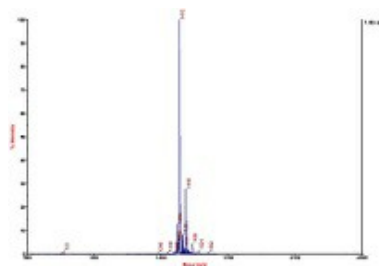
Frequency: 300 MHz

FTIR Spectra



[Click to enlarge](#)

Mass Spectra



[Click to enlarge](#)

Polarity/Scan Type: Positive

Solvent: MeOH

Solution Concentration: 10 mg/mL

Instrument: Agilent

References:

Stiller, C. R., MD, and R. A. Ulan, MD. "Cyclosporin A: A Powerful Immunosuppressant." *Canadian Medical Association* 126 (1981): 1041-046. www.ncbi.gov. Web. 27 Aug. 2012.

Crabtree, G. R., J. Nourse, and L. Timmermann. "The Mechanism of Action of Cyclosporin A and FK506." *Clinical Immunology and Immunotherapy* (1996): 40-45. www.ncbi.gov. Web. 27 Aug. 2012.

Wang, Paul C. et. al. "Isolation of 10 Cyclosporine Metabolites from Human Bile." *Drug Metabolism and Disposition* 17.3 (1989): 292-96. [Nih.gov](http://nih.gov). Web. 28 Oct. 2013.

Copeland, Kenneth R. "Immunosuppressive Activity of Cyclosporine Metabolites Compared and Characterized by Mass Spectrometry and Nuclear Magnetic Resonance." *Clinical Chemistry* 36.2 (1990): 225-29. Web. 28 Oct. 2013.

Matsuda, Staoshi. "Mechanisms of Action of Cyclosporine." *Immunopharmacology* 47 (2000): 119-25. Elsevier. Web. 28 Oct. 2013.

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