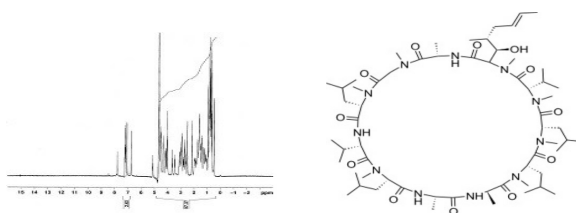


<b>Product Name:</b>	Cyclosporin B, EvoPure®
<b>Product Number:</b>	C043
<b>CAS Number:</b>	63775-95-1
<b>Molecular Formula:</b>	C <sub>61</sub> H <sub>109</sub> N <sub>11</sub> O <sub>12</sub>
<b>Molecular Weight:</b>	1188.58 g/mol
<b>Appearance:</b>	White powder
<b>Source:</b>	<i>Tolypocladium Inflatum</i>
<b>Water Content (Karl Fischer):</b>	≤3.0%
<b>Melting Point:</b>	149-152 °C
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	<p>Cyclosporin B, EvoPure is a dihydroxylated metabolite of cyclosporin A (CsA). Cyclosporin B (M-26) and other cyclosporin metabolites have been found to have lower (&lt;10%) immunosuppressant activity than cyclosporin A (CsA). Cyclosporin B and other metabolites have been isolated and characterized but do not appear to have been extensively studied.</p> <p>For more cyclosporin products, <a href="#">click here</a>.</p>
<b>Mechanism of Action:</b>	<p>Cyclosporin B (and other cyclosporin A metabolites) have lower immunosuppressive activity but likely operate under the same mechanism as cyclosporin A described below.</p> <p>After entering a T-cell, Cyclosporin A associates with the cytosolic protein cyclophilin which helps in protein folding. Cyclosporin A binds to cyclophilins and this complex binds another cytosolic protein phosphatase called Calcineurin (protein phosphatase 2B) that dephosphorylates a transcription factor (nuclear factor of activated T-cells, or NF-AT) needed for expression of interleukin 2 (IL-2.). It also blocks the pathway to nitric oxide synthesis via tumor necrosis factor (TNFa) and Interleukin 1a. 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>
<b>Cancer Applications</b>	<p>Cyclosporin's immunosuppressive properties and potential toxicity can be studied during in vitro assays. Other metabolites of Cyclosporin A (AM1, AM1c, DihydroAM1, AM19, and AM4N) can also be studied (Vollenbroeker B et al, 2005).</p>

## Technical Data:

### HNMR Spectra



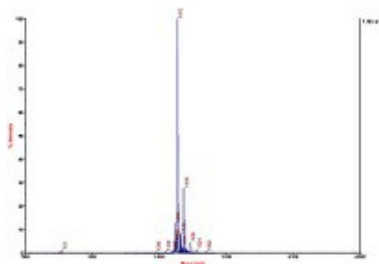
[Click to enlarge](#)

**Solvent:** DMSO

**Instrument:** Varian 300

**Frequency:** 300 MHz

### Mass Spectra



[Click to enlarge](#)

**Polarity/Scan Type:** Positive

**Solvent:** MeOH

**Solution Concentration:** 10 mg/mL

**Instrument:** Agilent

**References:**

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