bio-techne
TOCRIS

Print Date: Feb 3rd 2026

Certificate of Analysis

www.tocris.com

Product Name: **PSC 833** **Catalog No.: 4042** **Batch No.: 6**

CAS Number: 121584-18-7

IUPAC Name: 6-[(2*S*,4*R*,6*E*)-4-methyl-2-(methylamino)-3-oxo-6-octenoic acid]-7-L-valine-cyclosporin A

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{63}H_{111}N_{11}O_{12}$

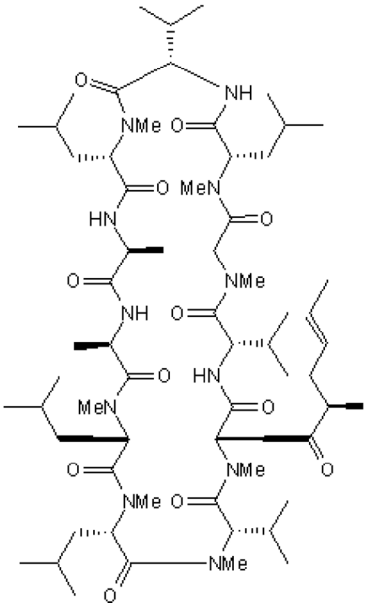
Batch Molecular Weight: 1214.62

Physical Appearance: White solid

Solubility: DMSO to 2 mg/ml

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.5% purity

Mass Spectrum: Consistent with structure

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Description:

PSC 833 is a P-glycoprotein (P-gp) modulator; inhibits P-gp-mediated multidrug-resistance (MDR). Reverses resistance to several cytotoxic drugs including mitoxantrone and doxorubicin (resistance factors are 2.0 and 6.5 respectively) in human MDR cancer cell lines. Non-immunosuppressive analog of cyclosporin A (Cat. No. 1101).

Physical and Chemical Properties:

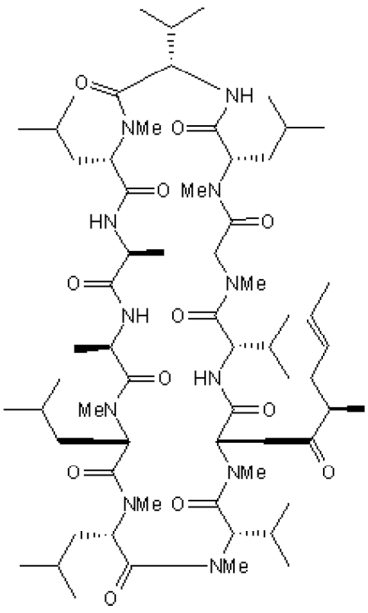
Batch Molecular Formula: $C_{63}H_{111}N_{11}O_{12}$

Batch Molecular Weight: 1214.62

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 2 mg/ml

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Shen *et al* (2009) Dynamic assessment of mitoxan. resistance and modulation of multidrug resistance by Valspodar (PSC833) in multidrug resistance human cancer cells. J.Pharmacol.Exp.Ther. ***330*** 423. PMID: 19423841.

Shen *et al* (2008) Quantitation of doxorubicine uptake, efflux, and modulation of multidrug resistance (MDR) in MDR human cancer cells. J.Pharmacol.Exp.Ther. ***324*** 95. PMID: 17947497.

Goda *et al* (2007) Complete inhibition of P-glycoprotein by simulataneous treatment with a distinct class of modulators and the UIC2 monoclonal antibody. J.Pharmacol.Exp.Ther. ***320*** 81. PMID: 17050779.