

Product Name: Cyclosporin H

Catalog No.: 6982

Batch No.: 2

CAS Number: 83602-39-5

IUPAC Name: 5-(*N*-Methyl-*D*-valine)cyclosporin A

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆₂H₁₁₁N₁₁O₁₂·3¼H₂O

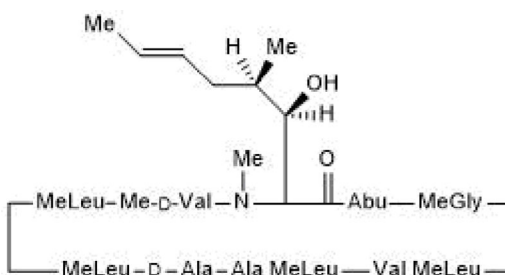
Batch Molecular Weight: 1261.19

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.0% purity

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.05	9.39	12.22
Found	58.24	9.7	12.03

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 5-(N-Methyl-D-valine)cyclosporin A

Description:

Cyclosporin H is a viral transduction enhancer. Increases lentiviral transduction up to 10-fold in human cord blood-derived hematopoietic stem and progenitor cells (HSPCs). Displays an additive effect when combined with rapamycin (Cat. No. 1292) or prostaglandin E₂ (Cat. No. 2296). Lacks immunosuppressant activity of cyclosporin A (Cat. No. 1101).

Physical and Chemical Properties:

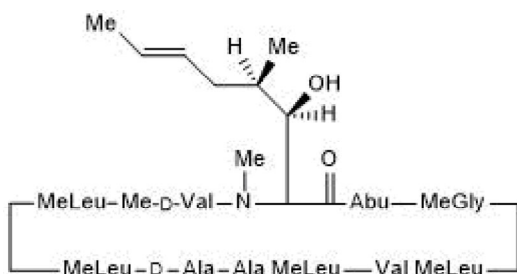
Batch Molecular Formula: C₆₂H₁₁₁N₁₁O₁₂·3¼H₂O

Batch Molecular Weight: 1261.19

Physical Appearance: White solid

Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 50 mM

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:

Petrillo et al (2018) Cyclosporine H overcomes innate immune restrictions to improve lentiviral transduction and gene editing in human hematopoietic stem cells. *Cell Stem Cell.* **23** 820. PMID: 30416070.

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