

Product Name: A23187, free acid

Catalog No.: 1234 **Batch No.:** 10

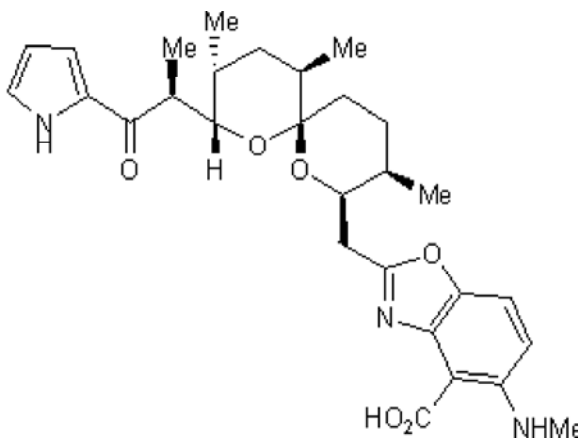
CAS Number: 52665-69-7

EC Number: 258-084-1

IUPAC Name: 5-(Methylamino)-2-[[2*R*,3*R*,6*S*,8*S*,9*R*,11*R*]-3,9,11-trimethyl-8-[(1*S*)-1-methyl-2-oxo-2-(1*H*-pyrrol-2-yl)-ethyl]-1,7-dioxaspiro[5.5]undec-2-yl]methyl]-4-benzoxazolecarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₃₇N₃O₆.
Batch Molecular Weight: 523.63
Physical Appearance: White solid
Solubility: DMSO to 5 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.52	7.12	8.02
Found	66.46	7.23	8.08

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

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Description:

A23187, free acid is a calcium ionophore that induces Ca²⁺-dependent cell death by increasing intracellular calcium concentration. Promotes intracellular ROS generation and platelet particle formation (fragmentation) in vitro and in vivo. Can be used to induce autophagy in mammalian cells.

Physical and Chemical Properties:

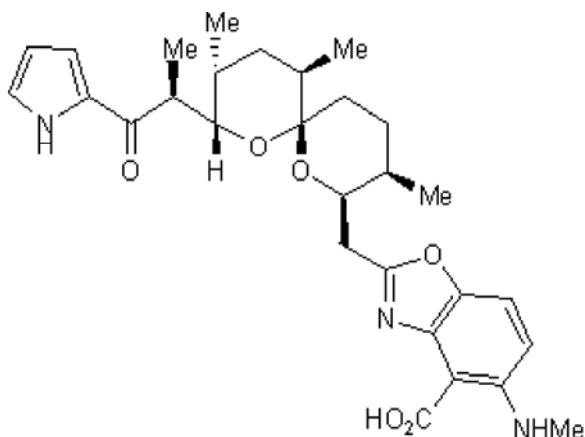
Batch Molecular Formula: C₂₉H₃₇N₃O₆.

Batch Molecular Weight: 523.63

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 5 mM

Solutions in DMSO may appear hazy or as a fine suspension

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. Our standard recommendations are:

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:

Sakanashi et al (2009) Zn²⁺, derived from cell preparation, partly attenuates Ca²⁺-dependent cell death induced by A23187, calcium ionophore, in rat thymocytes. *Toxicol.In Vitro* **23** 338. PMID: 19124067.

Ding et al (2007) Differential effects of endoplasmic reticulum stress-induced autophagy on cell survival. *J.Biol.Chem.* **282** 4702. PMID: 17135238.

Kajitani et al (2007) Mechanism of A23187-induced apoptosis in HL-60 cells: dependency on mitochondrial permeability transition but not NADPH oxidase. *Biosci.Biotechnol.Biochem.* **71** 2701. PMID: 7535265.

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