

Product Name: Mitomycin C

Catalog No.: 3258

Batch No.: 3

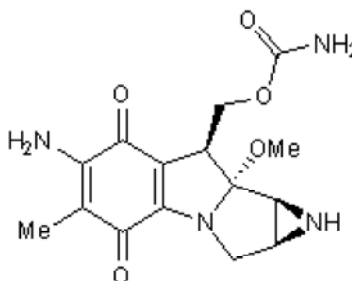
CAS Number: 50-07-7

EC Number: 200-008-6

IUPAC Name: [1aS-(1α,8β,8α,8bα)]-6-Amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methylazirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₈N₄O₅
Batch Molecular Weight: 334.33
Physical Appearance: Dark purple solid
Solubility: water to 5 mM
DMSO to 100 mM
ethanol to 5 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.89	5.43	16.76
Found	53.98	5.44	16.84

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

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Description:

Antibiotic and antitumor agent. Covalently binds DNA forming intra- and interstrand crosslinks. Inhibits DNA synthesis. Also used for MEF/STO feeder layer preparation in stem cell culture.

Physical and Chemical Properties:

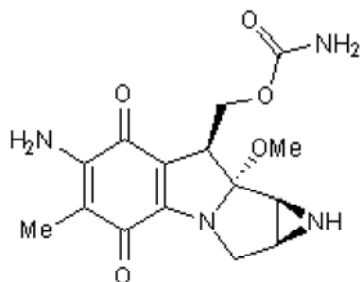
Batch Molecular Formula: C₁₅H₁₈N₄O₅

Batch Molecular Weight: 334.33

Physical Appearance: Dark purple solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°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:

water to 5 mM

DMSO to 100 mM

ethanol to 5 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. 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:

Park et al (2016) Modeling and correction of structural variations in patient-derived iPSCs using CRISPR/Cas9. *Nat.Protoc.* **11** 2154. PMID: 27711053.

Bryja et al (2006) Derivation of mouse embryonic stem cells. *Nat.Protoc.* **1** 2082. PMID: 17487198.

Bizanek et al (1992) Isolation and structure of an intrastrand cross-link adduct of mitomycin C and DNA. *Biochemistry* **31** 3084. PMID: 1554696.

Tomasz et al (1987) Isolation and structure of a covalent cross-link adduct between mitomycin C and DNA. *Science* **235** 1204. PMID: 3103215.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956