Product Name: **Mitomycin C** **Catalog No.: 3258** **Batch No.: 2**

CAS Number: 50-07-7 EC Number: 200-008-6

IUPAC Name: [1a*S*-(1aα,8β,8aα,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

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:

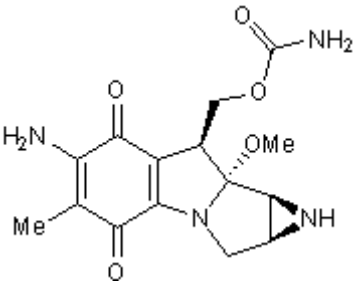
Batch Molecular Formula: $C_{15}H_{18}N_4O_5$

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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