Product Specification Sheet

**Product Name:** Mitomycin C  
**Catalog Number:** C6486

### Technical information:

- **Chemical Formula:** C₁₅H₁₈N₄O₅
- **CAS #:** 50-07-7  
- **Molecular Weight:** 334.33  
- **Purity:** > 98%  
- **Appearance:** purple solid solid  
- **Solubility:** Soluble in DMSO up to 20 mM  
- **Chemical Name:** [6-Amino-8a-methoxy-5-methyl-4,7-dioxo-1,1a,2,4,7,8a,8b-octahydroazireno[2',3':3,4]pyrrolo[1,2-a]indol-8-yl]methyl carbamate  
- **Storage:** Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.  
- **Shelf Life:** In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.

### Handling:

- To make 10 mM stock solution, add 0.299mL of DMSO for each mg of Mitomycin C.  
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

### Biological Activity:

Mitomycin C is a quinone-based antitumor antibiotic that crosslinks the complementary strands of the DNA double helix with exquisite base- and regioselectivity for the N2 of guanine. (1) It first entered clinical trials in 1958 has been employed since 1974 in combination chemotherapy treatments (2)

Mitomycin C has been shown to induce apoptosis through caspase processing. In MCF-7 breast cancer cell lines, mitomycin C treatment led to active caspase-7, -8, and -9 processing, with minimal effect to caspase-3. (3)

More recently, mitomycin C was observed to act irreversibly upon thioredoxin reductase (TrxR) in a time- and concentration-dependent manner. In DTNB and insulin assays, mitomycin C inhibited

### Reference:


To reorder: [http://www.cellagentech.com/Mitomycin-C/](http://www.cellagentech.com/Mitomycin-C/)  
For Technical Support: [technical@cellagentech.com](mailto:technical@cellagentech.com)

*Chemicals are sold for research use only, not for clinical or diagnostic use.*