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## DATASHEET

Mitomycin C

### Product overview

<b>Name</b>	Mitomycin C
<b>Cat No</b>	HB4458
<b>Alternative names</b>	Ametycine, MMC, NSC 26980
<b>Biological action</b>	Antibiotic
<b>Applications</b>	Cell Culture
<b>Purity</b>	>97%
<b>Description</b>	Antibiotic. DNA synthesis inhibitor.

### Biological Data

<b>Biological description</b>	Inhibits proliferation of various cell types. Inhibits DNA synthesis by forming covalent crosslinks between complementary DNA strands.
	Widely used for treatment of feeder cell layers (e.g. for PMEF (primary mouse embryonic fibroblasts) and CD1 mouse embryonic fibroblasts (MEFs) and hESCs (human embryonic stem cells).
	Also shows antitumor activity.

### Solubility & Handling

<b>Storage instructions</b>	+4°C
<b>Solubility overview</b>	Soluble in DMSO (100 mM) and water (5 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	[1aS-(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
<b>Molecular Weight</b>	334.33
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>15</sub> H <sub>18</sub> N <sub>4</sub> O <sub>5</sub>
<b>CAS Number</b>	50-07-7
<b>PubChem identifier</b>	5746
<b>SMILES</b>	CC1=C(C(=O)C2=C(C1=O)N3C[C@H]4[C@@H]([C@@]3([C@@H]2COC(=O)N)OC)N4)N
<b>InChiKey</b>	NWIBSHFKIJFRCO-WUDYKRTCSA-N
<b>MDL number</b>	MFCD00078109
<b>Appearance</b>	Purple

### References

**Mitomycin C as an alternative to irradiation to inhibit the feeder layer growth in long-term culture assays.**

Ponchio et al (2000) Cytotherapy 2(4)

**PubMedID** [12042037](#)

**Isolation and structure of an intrastrand cross-link adduct of mitomycin C and DNA.**

Bizanek et al (1992) Biochemistry 31(12)

**PubMedID** [1554696](#)

**Isolation and structure of a covalent cross-link adduct between mitomycin C and DNA.**

Tomasz et al (1987) Science 235(4793)

**PubMedID** [3103215](#)

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