

CELUX® Mitomycin C

Cat. no. MCCE007

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1. Product Information

Product name	CELUX® Mitomycin C
Cat. No.	MCCE007
Size	10 mg
Storage and shipping	Ice bag, powder stored at -20°C for 3 years, divide into portions and keep in a dry, -20°C environment to avoid freeze-thaw cycles. The product is sensitive to light, heat, and humidity.

2. Product description

Mitomycin C (Ametycine) is an antitumor antibiotic and DNA cross-linking agent that inhibits DNA synthesis, causing DNA damage and aiding in cancer treatment. It is an ADC cytotoxin that induces both caspase-dependent and Fas/CD95-independent apoptosis.

3. Performance parameter

English Synonym	Ametycine, Mitomycin C
CAS NO.	50-07-7
Target	DNA synthesis
Pathway	Cell Cycle/DNA Damage--DNA Alkylator/Crosslinker
Formula	$C_{15}H_{14}N_4O_5$
Molecular Weight	334.33
Purity	≥ 97%
Solubility	Soluble in ethanol (20 mg/mL), DMSO (5 mg/mL), DMF (1.2 mg/mL)
Appearance	Powder

4. Usage

[For specific concentrations, refer to relevant literature and optimize based on experimental conditions (e.g., purpose, cell type, culture characteristics).]

Method (Data from published literature, for reference only)

- Cell-based experiments (in vitro)

Mitomycin C shows significant cytotoxicity in cancer cell lines such as OVCAR-5 (ovarian), HT-29 (colon), SK-N-MC (neuroblastoma), HEP-2 (liver), COLO-205 (colon), NIH-OVCAR-3 (ovarian), and A-549 (lung). [1]

- Animal experiments (in vivo)

Mitomycin C (400 µM) treated rat bladder tumor models, significantly inhibiting tumor growth. [2]

5. Note

5.1. For your safety and health, please wear lab coat and disposable gloves to operate.

5.2. This product is for scientific research purposes only.

5.3. Centrifuge briefly before dissolving the powder to ensure that the product is all in the bottom of the tube.

6. Reference

[1] Sharma V, et al. In vitro cytotoxic activity of leaves extracts of *Holarrhena antidysenterica* against some human cancer cell lines. Indian J Biochem Biophys. 2014 Feb;51(1):46-51.

[2] Jankun J, et al. Epigallocatechin-3-gallate prevents tumor cell implantation/growth in an experimental rat bladder tumor model. Int J Oncol. 2014 Jan;44(1):147-52.