Mitomycin C

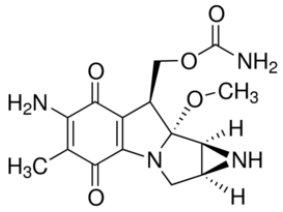
产品编号：MB1164

质量标准：≥970 μg/MG

包装规格：10MG

产品形式：solid

基本信息

分子式	$C_{15}H_{18}N_4O_5$	结构式	
分子量	334.33		
CAS No.	50-07-7		
储存条件	-20℃，避光防潮密闭干燥		
溶解性 (25°C)	DMSO：30 mg/mL		
注意事项	溶解性是在室温下测定的，如果温度过低，可能会影响其溶解性。		
其他说明	为了您的安全和健康，请穿实验服并戴一次性手套操作。		

简介：丝裂霉素 C，是一种广谱抗肿瘤抗生素，对多种癌症有抗癌作用，其作用原理可使细胞的 DNA 解聚，同时阻碍 DNA 的复制，从而抑制肿瘤细胞分裂。

物理性状及指标：

产品形式：……深蓝紫色结晶粉末

溶解性 ：……DMSO：30 mg/mL

*Mitomycin C 水中如溶解不好，如果需要水溶：可尝试按照 2mg+48mg 氯化钠助溶

含量 ：……≥970 μg/MG

生物活性

作用机制：它通过与 DNA 共价反应来抑制 DNA 合成，在互补的 DNA 链之间形成交联。这种相互作用阻止了互补 DNA 链的分离，抑制了 DNA 复制。

抗菌谱：丝裂霉素 C 具有很强的抗肿瘤活性，对革兰氏阳性和革兰氏阴性菌有很强的杀菌作用。

丝裂霉素 C 引起双链 DNA 的交联，导致诱变，抑制 DNA 合成，该化合物不影响 RNA 和蛋白质的合成。

以下表格内容来源公开文献，仅供参考：

Target	DNA synthesis
In Vitro	C50 and C125: Identical process to “Early Cryo” cells, except that no G418 drug selection was used. Instead, MMC was added to maturation medium (50 or 125 ng/mL final concentration) immediately before feeding cells on process days 27 and 29. Cryopreserved on process day 33[1].
In Vivo	Female C57BL/6J strain mice 8 weeks of age obtained from Japan SLC , were bred and treated in conformity with the guidelines for animal experiments at Kanazawa Medical University. They were housed for 1 week with a 12 h light–dark cycle in a temperature and humidity controlled room, and were given free access to food and water. After adaptation to

	the lighting conditions for 1 week, healthy mice were chosen for the investigation.Female C57BL/6J strain mice 8 weeks of age obtained from Japan SLC were bred and treated in conformity with the guidelines for animal experiments at Kanazawa Medical University. They were housed for 1 week with a 12 h light–dark cycle in a temperature and humidity controlled room, and were given free access to food and water. After adaptation to the lighting conditions for 1 week, healthy mice were chosen for the investigation[2].
药代动力学	The purpose of this study was to investigate the pharmacokinetics of mitomycin C when administered with ifosfamide and cisplatin as part of the mitomycin C, ifosfamide and cisplatin (MIC) regimen. Eleven patients with advanced non-small cell lung cancer, aged 49-73 years, were treated with mitomycin C (6 mg m-2), ifosfamide and cisplatin. Mitomycin C concentrations in plasma and erythrocytes were determined using HPLC with UV absorbance detection at 360 nm. The plasma β half life of mitomycin C was 44 min and the clearance 16.38 L h-1 m-2. A mean erythrocyte/plasma ratio of 0.87 (SD±0.35) was obtained. At low plasma concentrations, mitomycin C was undetectable in the erythrocyte. The mean plasma mitomycin C concentration when this occurred was 50 ng mL-1 (SD±35). The plasma pharmacokinetics of mitomycin C in the MIC regimen are consistent with the pharmacokinetic data obtained as a single agent, or as a component of other chemotherapy regimens. Mitomycin C is taken up into erythrocytes and is detectable within these cells for two hs following injection. The erythrocyte may act as a transporter of this compound in the circulation[3].
文献链接	[1] https://stemcellsjournals.onlinelibrary.wiley.com/doi/full/10.1002/sctm.20-0014 [2] https://europepmc.org/article/PMC/2249738 [3] https://scialert.net/fulltext/?doi=ijp.2006.293.297

使用浓度：具体使用浓度请参考相关文献，并根据自身实验条件（如实验目的，细胞种类，培养特性等）进行摸索和优化。

用途及描述：

1. 通过联合用药消除癌细胞的抗性促进其凋亡，多种癌症都对抗癌药具有一定的抗性，这极大地限制了其应用于肿瘤治疗的前景，丝裂霉素 C 能够致敏 一些抗癌药抗性的癌细胞使其恢复对药物的敏感性，显著促进癌细胞凋亡。

2. 可与博来霉素、长春新碱治疗宫颈癌；与多柔比星、5-FU 治疗胃癌、肺癌、慢性粒细胞白血病、恶性淋巴瘤等。

【注意】

●我司产品为非无菌包装，若用于细胞培养，请提前做预处理，除去热原细菌，否则会导致染菌。

●部分产品我司仅能提供部分信息，我司不保证所提供信息的权威性，以上数据仅供参考交流研究之用。