Tamoxifen；他莫昔芬

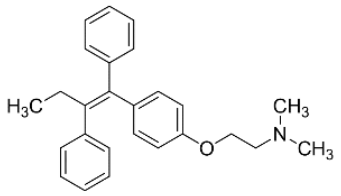
产品编号：MB5257

质量标准：>99%,BR

包装规格：1G;5G

产品形式：solid

基本信息

分子式	C26H29NO	结构式	
分子量	371.51		
CAS No.	10540-29-1		
储存条件	2-8℃，避光防潮密闭干燥		
溶解性 (25°C)	DMSO 50 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：他莫昔芬 ；Tamoxifen 是一种选择性雌激素受体调节剂 (SERM)，可阻断乳腺细胞中的雌激素作用，并可激活其他细胞，如骨骼，肝脏和子宫细胞中的雌激素活性。

物理性状及指标：

外观：……白色至类白色粉末

溶解性：……DMSO ： 50 mg/mL

含量：……>99%,BR

生物活性 :(来自公开文献，仅供参考)

靶点	Estrogen receptor
体外研究	Medium was changed to serum-free IMEM for 1 day and then MCF7 cells were treated with 10^{-6} M tamoxifen for 1 day. The agar mixture contains 25 ml of 2.5% soft agar, which was autoclaved and, after cooling to 40 to 50 'C, 25 ml of double strength IMEM, 45 ml of IMEM, 5 ml of charcoal-treated calf serum, and 0.1 ml of insulin in the presence and absence of 0.1 ml of 10^{-3} M tamoxifen were added. The final agar concentration was 0.62%. The bottom layer of agar contained 7 ml of agar mixture and the top layer of agar contained 2 ml of agar mixture and 1 ml of cell suspension, yielding a final agar concentration of 0.41%. Seven ml of soft agar mixture were transfered to plastic 4-well plates. Agar plates were then allowed to stand at room temperature until solidified. The top layer of soft agar and cells (0.7 to 1 X 10^6 cells/plate of MCF-7 cells pretreated with tamoxifen) mixture were plated on the bottom layer of soft agar and incubated at 37℃ in the incubator for 1 day. Then 1 ml of IMEM supplemented with 5% charcoal-treated calf serum

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	with 10^{-6}M tamoxifen was added on the top layer of soft agar. Once a week this medium was changed. MCF-7 cells were allowed to grow for 6 to 8 weeks to become 2- to 3-mm diameter colonies. Then colonies were isolated with a sterile Pasteur pipette and grown up sequentially in 24-well dishes, progressing to larger flasks with IMEM and 5% fetal calf serum. The efficiency of colony formation for wild type cells was reduced from 10^{-1} to 10^{-4} by the addition of 10^{-6} M tamoxifen. One variant, R27, selected in tamoxifen which has remained stably resist ant to tamoxifen for 6 months, is characterized in this study[1].
体内研究	We injected tamoxifen intraperitoneally on three consecutive days at doses between 0 and 90 µg/g body weight/day in 6-week-old mice. We were surprised to observe death in the αMHC-MerCreMer strain at tamoxifen doses of 60 and 90 µg/g body weight. To determine whether this mortality was associated with the given dose of tamoxifen, we analyzed Kaplan-Meier curves . No death occurred after injecting one single dose of 1 or 5 µg tamoxifen/g body weight. Injecting 3×30 µg tamoxifen/g body weight caused 10% mortality [P>0.05 compared with oil injection (control)] and 3×40 µg tamoxifen/g body weight was associated with 18% mortality (P>0.05 compared with oil). Injecting 3×60 and 3×90 µg tamoxifen/g body weight caused 50% mortality within 7.5 days (P<0.02 and P<0.05, respectively, compared with oil). At 1–2 days prior to death, some of these mice showed severely decreased activity and hypothermia. These severely ill-appearing mice were euthanized 2–6 days after tamoxifen administration. Their hearts appeared soft and dilated, and the myocardium was inflamed, swollen and disorganized. In summary, the incidence of early mortality when inducing Cre activity in cardiomyocytes was dependent on the tamoxifen dose[2].
参考文献	[1] Isolation and characterization of a tamoxifen-resistant cell line derived from MCF-7 human breast cancer cells. - ScienceDirect [2]Moderate and high amounts of tamoxifen in αMHC-MerCreMer mice induce a DNA damage response, leading to heart failure and death | Disease Models & Mechanisms | The Company of Biologists

用途及描述：科研试剂，广泛应用于分子生物学，药理学等科研方面，严禁用于人体；

1. 抗肿瘤活性；
2. 联合用药治疗乳腺癌及乳腺增生；
3. 他莫昔芬作为一种 SERM,对神经系统有很好的保护作用；
4. 他莫昔芬引发雌激素受体介导的毒性,干扰宿主生物学功能。

储液配置

体积 / 质量 / 浓度	1 mg	5 mg	10 mg
1 mM	2.6917 mL	13.4586 mL	26.9172 mL
5 mM	0.5383 mL	2.6917 mL	5.3834 mL

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10 mM	0.2692 mL	1.3459 mL	2.6917 mL
50 mM	0.0538 mL	0.2692 mL	0.5383 mL

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。

【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。

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