

南昌乐悠生物科技有限公司动物实验伦理审查表

Application Format for Ethical Approval for Research Involving Animal of Nanchang Royo Biotech Co., Ltd
批准文号(IACUC Issue No): RYE2024083002

<div> 申请人填写的相关信息 (Related information filled by applicant) </div>	申请单位: 南昌乐悠生物科技有限公司 Name of organization: Nanchang Royo Biotech Co., Ltd			
	申请人学历: 硕士 Education of applicant: Master		技术职称: 中级 Professional title:	
	实验名称: 不同抗肿瘤药物在 SK-OV-3 卵巢癌肿瘤模型上的药效学评价 Pharmacodynamic evaluation of different antitumor drugs in SK-OV-3 ovarian cancer tumor model			
	申请人: 毛贵元 Applicant: Guiyuan Mao			
	实验目的: 研究不同抗肿瘤药物对 SK-OV-3 卵巢癌肿瘤模型的影响 Aim of experiment: To study the effect of different antitumor drugs on SK-OV-3 ovarian cancer tumor model			
	实验动物使用许可证号: SYXK(赣)2023-0002 Number of the using of Laboratory Animal: SYXK(gan)2023-0002			
	拟进动物情况	动物来源: 广东至远生物医药科技有限公司 Source of animal: Guangdong Zhiyuan Biomedical Technology Co., Ltd.		
		品种品系: BALB/c 裸鼠 Species or strain : BALB/c nude mice	等级: 无特定病原体级 Grade: SPF	周龄: 6-8 周 Age: 6 to 8 weeks
		数量(Number): 12 (♀ 12 只; ♂ 0 只)	申请日期(Application date): 2024 年 08 月 11 日	
		进驻日期(Entering date): 2024 年 10 月 8 日	结束日期(Ending date): 2024 年 12 月 2 日	
实验要点, 包括实验方法、观测指标、实验结束后处死动物的方法等: (Outline of experiments, experimental methods, observational index, executing animal method, et. al): 实验方法 (experimental methods) : 一、剥瘤&前处理 1. 将肿瘤局部皮肤备皮, 将获得的肿瘤组织样本用生理盐水或 PBS 清洗后放入样本组织运输液 (DMEM+5%双抗+ 2% FBS) 中。 2. 标准化组织前处理操作: 无菌培养皿放在金属冰浴上, 加入与组织等体积的 0.2% 无菌台盼蓝染色 1min, 剔除坏死组织、剔除脂肪等非肿瘤组织。组织消毒液(含双抗)浸泡组织 1min 消毒灭菌, 反复清洗组织直至颜色清亮。肿瘤组织用手术刀/眼科剪分割成 2mm×2mm×2mm 大小的微组织块。转移到另一含样本清洗液的干净培养皿中, 用样本清洗液冲洗一次, 然后置于含样本运输保存液中待接种。 一、Exfoliated tumor& Tissue pretreatment 1. The local skin of the tumor was prepared, and the obtained tumor tissue samples were cleaned with normal saline or PBS and then put into the sample tissue transfusion (DMEM+5% double antibody + 2% FBS). 2. Standardized tissue pre-treatment operation: sterile petri dish was placed on metal ice bath, and 0.2% sterile Trypan blue equal to tissue volume was added to stain for 1min, and necrotic tissues, fat and other non-tumor tissues were removed. The tissue disinfectant (including double antibody) soaked the tissue for 1min for disinfection and sterilization, and repeatedly cleaned the tissue until the color was clear. The tumor tissue was divided into 2mm × 2mm × 2mm microtissue blocks with scalpel/ophtalmic scissors. Transfer to another clean petri dish containing the sample cleaning solution, rinse once with the sample cleaning solution, and place in the sample transport preservation solution to be inoculated. 二、接种				



使用接种套装（接种板+接种针），穿刺点通常选择上下肢中间部位或者肩胛部，有毛小鼠用剃毛器在穿刺点区域备皮。将小鼠卡在套筒的卡位上固定小鼠，碘伏消毒。用接种针将组织块接种到目标位置。接种后给予抗生素治疗 3 天或抗生素果冻 5 天。

二、Inoculate

Using the inoculation kit (inoculation plate + inoculation needle), the puncture point is usually selected in the middle of the upper and lower limbs or the shoulder. The hairy mice use a hair shaver to prepare skin in the puncture point area. The mouse was fixed on the clamp of the sleeve and sterilized with iodophor. The tissue block is inoculated to the target location with a vaccination needle. After vaccination, antibiotics were given for 3 days or antibiotic jellies for 5 days.

三、分组

当肿瘤体积达 30~50mm³ 时，将肿瘤均一性好的小鼠随机分组，分为模型对照组、三氟拉嗪组（10 mg/kg ,IP, qd）

Grouping

When the tumor volume reached 30 to 50mm³, mice with good tumor homogeneity were randomly grouped into the model control group and the trifluoroprazine group (10 mg/kg,IP, qd).

实验终点:

I 药物干预后 21 天，且模型对照组平均体积 >500mm³ 则终止实验，如模型对照组平均体积 < 500mm³，则继续延长干预时间；

II 小鼠肿瘤体积 >1500mm³；

III 小鼠肿瘤溃疡坏死；

IV 小鼠减轻的体重超过自身体重的 20%（应考虑到肿瘤所占的分量）。

Experimental end point:

I At 21 days after drug intervention, if the average volume of the model control group was > 500mm³, the experiment was terminated; if the average volume of the model control group was < 500mm³, the intervention time was continued to be extended;

II mouse tumor volume > 1500mm³;

III tumor ulcer necrosis in mice;

IV Mice lost more than 20% of their body weight (the amount of tumor should be taken into account).

观测指标（observational index）：

I 肿瘤体积 每周测量 2 次

II 小鼠体重 每周测量 2 次

III 笼旁监测：小鼠精神、毛发、步伐等观察

IV 肿瘤组织 肿瘤组织液氮速冻，-80℃冰箱保存，瘤体>50mg

V 病理组织切片 肿瘤组织、心脏、左心室组织

VI 血生化检测：心肝肾功能检测：安乐死后心脏穿刺采血法获得血清。

Observational Index:

I Tumor volume was measured twice a week

II The weight of the mice was measured twice weekly

III Cage monitoring: mouse spirit, hair, pace and other observation

IV Tumor tissue was frozen in liquid nitrogen and stored at -80℃ with tumor volume >50mg

V Pathological tissue sections were tumor tissue, heart tissue and left ventricular tissue

VI Blood biochemical test: heart, liver and kidney function test: Serum was obtained by cardiac puncture blood collection after Anle's death.

实验结束后处死动物的方法：CO₂ 安乐死

executing animal method: Euthanized with CO₂ inhalation

申请人签名 (Signature of applicant): 毛贵元 联系电话 (Telephone): 13466735978

项目负责人签名(Signature of Project director): 何远桥 联系电话 (Telephone): 13330081228

声明(Statement):

我将自觉遵守实验动物福利伦理原则, 随时接受委员会的监督与检查, 如违反规定, 自愿接受处罚。

(I will conscientiously abide by the ethical principles of animal welfare, accept the supervision and inspection of the committee at any time, and voluntarily accept the punishment if any infringement.)

项目负责人签名(Signature of Project director): 何远桥

项目执行人签章(Signature of Project implementation): 毛贵元

审查依据

(Inspection contents)

1. 该项目是否必须用实验动物进行实验, 即能否用计算机模拟、细胞培养等非生命方法替代动物或用低等动物替代高等动物进行实验? (Does laboratory animal must be used in the project? Could other methods such as computer simulation, cell cultivation or using the low-grade animal instead of the high-grade animal?)

必须用实验动物进行实验。

Experiments must be performed with laboratory animals.

2. 表中所填申请人资格和所用动物的品种品系、质量等级、规格是否合适, 能否通过改良设计方案或用高质量的动物来减少所用动物的数量? (Are the qualification of applicant, species or strain, grade and specifications of animals suitable? Could the quantity of animals be reduced by improving the study design or using high quality animals?)

合适, 已优化方案减少所用动物的数量。

As appropriate, the protocol has been optimized to reduce the number of animals used.

3. 能否通过改进实验方法、调整实验观测指标、改良处死动物的方法, 来优化实验方案、善待动物?

(Could the study design and animal treatment be refined by ameliorating experimental method, adjusting observational index, executing animal method?)

已改进实验方法及调整实验观测指标以优化方案、善待动物。

The experimental method has been improved and the experimental observation indicators have been adjusted to optimize the program and treat animals well.

审查结果

是否同意申请人的实验方案

(Results of inspection)

实验动物管理和伦理委员会意见
(Attitude of the Animal Management and Ethics Committee):

同意
(Agree)

✓ 不同意
(Disagree)

□ 修改后同意
(Agree after revised)

□

伦理委员会主任委员签名(Signature of Ethics Committee Director):

南昌乐悠生物科技有限公司实验动物福利伦理委员会
(代章)

(The Institutional Animal Care and Use Committee of Nanchang Royo Biotech Co., Ltd)
(Stamp)

2024年8月30日