Renca-Luc

305696

GENERAL INFORMATION

Description

Renca-Luc □小鼠 Renca 肾细胞癌细胞系的生物发光衍生物，经过基因工程改造，可稳定表达萤火虫荧光素酶报告基因。 亲本 Renca 细胞系源自 BALB/c 小鼠的肾细胞癌，□免疫肿瘤学研究中应用最广泛的肾细胞癌（RCC）同基因模型之一。 Renca 肿瘤在 BALB/c 宿主中生长迅速且免疫原性较低，这使得该模型在模拟人类肾细胞癌（ RCC）特有的免疫抑制微环境的免疫功能正常条件下，成为评估免疫疗法（包括检查点抑制剂、细胞因子疗法和癌症疫苗）的宝贵模型。

Renca-Luc中稳定的荧光素酶整合，使得在同基因 BALB/c小鼠的原位肾包膜下和皮下异种移植模型中，能够对肿瘤负荷进行灵敏、无创的生物发光成像（ BLI）。给药荧光素后，发出的信号与存活肿瘤细胞数量呈正相关，从而支持对肿瘤植入情况、生长动力学及治疗反应进行纵向监测，而无需重复进行侵入性操作。 Renca-Luc在肾癌临床前研究中被广泛用于抗肾细胞癌药物的体内评估、联合免疫治疗策略以及抗血管生成抑制剂的评估。

Renca-Luc保留了亲本Renca细胞系的既定生物学和免疫学特性，包括与 BALB/c小鼠的同基因相容性及其特有的低免疫原性表型。荧光素酶修饰显著提高了实验灵敏度，并能够对治疗疗效进行实时药效学评估。 研究人员在进行大规模体内应用前，应根据具体实验条件验证荧光素酶活性、生长动力学及免疫学特征。

Tissue	肾脏
Disease	小鼠肾癌

Synonyms

- Luciferase Reporter RenCa Cell Line

CLASSIFICATION

Organism	Mouse
Sex	Male
Growth properties	Adherent
GMO status	GMO-S1

GMO status details

GMO-S1: This cell line contains a stably integrated firefly luciferase reporter cassette (Luc2, codon-optimized) introduced via replication-incompetent lentiviral transduction. The resulting polyclonal cell population was maintained under puromycin selection (1–5 µg/mL). S1 containment is required. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Morphology	上皮样
Tumourigenic	□，在合成小鼠中
Doubling time	24-48小时

IDENTIFIERS

Citation

Renca-Luc（Cytion 产品编号 305696）

NCBI TaxID	10090
Cellosaurus	CVCL_E3IJ

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Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

EXPRESSION AND SUSCEPTIBILITY

Antigen expression

Luc2□□□□□□□□□□□□□

HANDLING AND CULTURE

Culture medium

RPMI 1640□w□2.1 mM □□□□□□□w□2.0 g/L NaHCO3□Cytion □□□□ 820700a□□

Incubation atmosphere	37°C, 5%CO2, □□□□□

Supplements

□□□□□□□ 10% FBS

Dissociation reagent	Accutase

Subculturing

□□□□□□□□□□□□□□□□□□□□□□ PBS □□□T25 □□□ 3-5 □□ PBS□T75 □□□ 5-10 □□□□□□ Accutase □□□□□□□T25 □□□ 1-2 □□□T75 □□□ 2.5 □□□□□□□□□□□□ 8-10 □□□□□□□□□□□□□ 10 □□□□□□□□□□□□□□□□□□□□ 300xg □□ 3 □□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

Split ratio	1 □ 3
Seeding density	1□3×10⁴□□□/□□□□
Fluid renewal	□□ 2 □ 3 □

Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
Follow the procedure described under Post-Thaw Recovery

QUALITY CONTROL AND CRYOPRESERVATION

Freeze medium	□□□□□□□□□□□□□□□□□□□□□□+10% DMSO□□□□□□□□□□□□□□□

Storage conditions

□□□□□□□□□□□□□□□□□□□□□□□□□ -150 □ -196 ℃□□-80 °C□□□□□□□□□□□□□□□□□□□

Shipping conditions

□□ -78 °C □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

DONOR

Donor age	6 □
Ethnicity	BALB/c

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LEGAL AND SAFETY

Safety precautions

计划将低温样品储存在液氮中以便将来解冻时，必须遵守严格的安全措施。在将冷冻样本移入或移出液氮罐时，必须穿戴适当的防护手套和防护服，并使用面罩或安全护目镜。这样做 □为了降低在移出时因冷冻样品爆炸而造成伤害的风险，因为爆炸可能导致锋利的碎片飞溅。

Warranty

在Cytion，我们保证产品的质量和活力。
我们保证，从我们的工厂发货后 60 天内，我们的细胞在开始培养时都 □存活的。
我们保证所有材料均符合分析证书和 /或产品说明书中描述的规格。
有关详细信息，请参阅我们的 <a href="" /Who-we-are/Warranty/"" hreflang=""x-default"">保修声明。

Material Transfer Agreement required	Yes

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