SK-BR-3-Luc

305709

GENERAL INFORMATION

Description

SK-BR-3-Luc □人类 SK-BR-3 乳腺腺癌细胞系的生物发光衍生物，经基因工程改造后可稳定表达萤火虫荧光素酶报告基因。 亲本 SK-BR-3 细胞系源自一名 43 岁白人女性患者的乳腺腺癌胸腔积液转移灶，其特征为 HER2（ERBB2）基因扩增和过表达，因此被归类为 HER2 阳性乳腺癌模型。 SK-BR-3细胞呈现上皮样单层生长，被广泛用于研究 HER2 驱动的乳腺癌生物学，以及评估包括曲妥珠单抗、拉帕替尼、帕妥珠单抗以及曲妥珠单抗 -德鲁克替康等抗体药物偶联物在内的 HER2靶向疗法。

SK-BR-3-Luc 中稳定的荧光素酶整合使人们能够对免疫缺陷宿主中的异种移植模型进行敏感、定量的生物发光成像（ BLI），以评估肿瘤负荷。 发出的发光信号与存活肿瘤细胞数量呈正相关，支持对肿瘤植入、生长动力学和治疗反应进行无创的纵向监测。 SK-BR-3-Luc 在针对乳腺癌 HER2 信号轴的抗 HER2 药物、抗体药物偶联物（ADC）、双特异性抗体及联合治疗策略的临床前评估中具有特别重要的价值，同时适用于高通量药物筛选和体内药效学研究。

SK-BR-3-Luc 保留了亲本 SK-BR-3 细胞系已确立的 HER2 扩增分子表型和生长特征。荧光素酶报告基因显著提高了体内成像研究的实验通量和灵敏度。 研究人员在进行大规模临床前应用前，应根据具体实验条件确认荧光素酶活性、 HER2扩增状态及增殖动力学。

Tissue	转移性
Disease	乳腺腺癌
Metastatic site	胸腔积液

CLASSIFICATION

Organism	Human
Sex	Female
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	□，在裸鼠体内形成分化较差的腺癌

IDENTIFIERS

Citation

SK-BR-3-Luc（Cytion 产品编号 305709）

NCBI TaxID	9606
Cellosaurus	CVCL_4Y11

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

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

EXPRESSION AND SUSCEPTIBILITY

Antigen expression

A□□□Rh□□□HLA A11□Bw22□+/-□□B40□B18□Luc2□□□□□□□□□□□□

Isoenzymes

PGM3□1□PGM1□1-2□ES-D□1□AK-1□1-2□GLO-1□2□G6PD□B□□□□□□□□ 0.0044

Mutational profile

□□□p.Arg175His□□□□

HANDLING AND CULTURE

Culture medium

McCoys 5A □□□□□□□□□□□3.0 g/L □□□□□□□□□□□□2.0 mM □□□□□2.2 g/L $NaHCO_3$□Cytion 820200a□

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	2-4×10⁴ □□□/cm²
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	43 □
Ethnicity	□□□□

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

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

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

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

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