HCC44

305456

GENERAL INFORMATION

Description

HCC44□胞系是一种非小□胞肺癌（NSCLC）模型，以其携带KRAS突变而闻名，该突变在癌症进展和耐药性中起着重要作用。 在一项探索KRAS驱动型NSCLC特征的研究中，发现HCC44□胞系的存活依赖于苹果酸酶 1（ME1），这表明该□胞系中的KRAS突变增强了参与谷氨酰胺代谢和氧化还原平衡的基因表达。 ME1在生成NADPH方面的作用有助于对抗氧化应激，这对处于快速增殖阶段的 KRAS突变癌□胞尤为重要。
针对色氨酸酶类似物等天然化合物的进一步研究显示，其对 HCC44具有潜在的治疗意义。研究评估了色氨酸酶 SA2及其相关分子对HCC44的□胞毒性作用，结果表明，由于侧链修饰影响了其与DNA的相互作用，这些化合物的效力较其他类似物有所降低。 此外，对该□胞系对放射治疗的反应进行了研究，结果表明干扰谷氨酰胺代谢可增强 HCC44对放射线的敏感性，从而可能克服KRAS突变所导致的部分放疗耐受性。

Tissue	肺部
Disease	腺癌

Synonyms

- HCC-44
- HCC0044
- Hamon Cancer Center 44

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮样

IDENTIFIERS

Citation

HCC44（Cytion 产品编号 305456）

NCBI TaxID	9606
Cellosaurus	CVCL_2060

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

突变：KRAS，p.Gly12Cys（c.34G>T），纯合子；突变：TERT，c.1-124C>A（c.228C>A）； 突变：TP53，p.Ser94Ter (c.281C>G)，纯合子；突变：TP53，p.Arg175Leu (c.524G>T)，纯合子

HANDLING AND CULTURE

Culture medium

RPMI 1640□w□2.0 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 □□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

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 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

QUALITY CONTROL AND CRYOPRESERVATION

Sterility

□□□□ PCR □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
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Freeze medium	□□□□□□□□□□□□□□□ FBS□+10% DMSO □ CM-1□Cytion □□□□□□ 800100□□□□□□□□□ □□□□□□□□□□□□□□□□□CM-1□Cytion □□□□□□ 800100□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□

Storage conditions

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Shipping conditions

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

DONOR

Donor age	54 □
Ethnicity	□□

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。这样做是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□胞在开始培养时都是存活的。
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□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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