SK-GT-4

305454

GENERAL INFORMATION

Description

SK-GT-4□胞系是一种人类食管腺癌模型，源自远端食管巴雷特氏异型增生中发生的原发性腺癌。 该□胞系属于斯隆-凯特琳纪念癌症中心建立的 SK-GT 系列，在研究巴雷特食管向食管腺癌的进展方面发挥了重要作用。 SK-GT-4 □胞表现出上皮特征，是研究食管癌分子机制（尤其是涉及 p53 抑癌基因突变的机制）的宝贵工具。

对 SK-GT-4 的基因组研究发现了 TP53 基因中的突变，具体为外显子 5 的第 175 个密码子处发生 G 到 A 的转换，导致精氨酸被组氨酸取代。 该突变与对5-氟尿嘧啶、丝裂霉素C和顺铂等DNA损伤性药物的化疗耐药性相关。 研究表明，p53的突变状态显著影响SK-GT-4□胞对化疗的反应，进而影响其□胞周期调控和凋亡。这些特征使该□胞系成为探索针对p53相关通路治疗策略的关键模型。

SK-GT-4已被用于评估食管腺癌的肿瘤侵袭潜能及其对生长因子的反应。该 □胞系在博伊登室实验中表现出侵袭能力，凸显了其在研究转移过程中的重要性。 SK-GT-4还表达多种生长因子的转录本，包括TGF-β和血小板衍生生长因子，这些因子促使其呈现侵袭性表型。该 □胞系在转化医学研究中确立的作用，凸显了其在基础癌症生物学和药物研发领域的实用价值。

Tissue	食管远端
Disease	腺癌

Synonyms

- SKGT4
- SK4

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	2

CHARACTERISTICS

Morphology	上皮样
Cell type	上皮□胞
Doubling time	30-35小时

IDENTIFIERS

Citation

SK-GT-4（Cytion 产品编号 305454）

NCBI TaxID	9606
Cellosaurus	CVCL_2195

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

突变：KRAS，简单突变，p.Gly12Ala (c.35G>C)，杂合子；突变：PIK3CA，简单突变，p.Glu542Lys (c.1624G>A)，杂合子； 突变：TP53，简单突变，p.Gln100Ter (c.298C>T)，纯合子

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Viruses

EBV □□□HBV □□□HCV □□□HIV-1 □□□HIV-2 □□□HPV □□□HTLV-I/-II □□□MLV □□

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 □□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

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 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 □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□

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

Storage conditions

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

Shipping conditions

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

DONOR

Donor age	89 □
Ethnicity	□□□□

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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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