SK-UT-1

300455

GENERAL INFORMATION

Description

SK-UT-1□胞系源自人类子宫平滑肌肉瘤（ULMS），这是一种起源于子宫平滑肌的高侵袭性癌症。该□胞系是研究ULMS肿瘤发生、转移及药物耐药性的关键模型。SK-UT-1□胞具有肉瘤特征，包括快速增殖、分化不良及对常规疗法的耐药性。该□胞系尤其用于研究癌干□胞样□胞（CSCs），这类□胞在癌症复发和化疗耐药性中起着重要作用。研究发现 SK-UT-1□胞中存在CD133+癌干□胞亚群，其具有增强的自我更新能力、集落形成能力和抗凋亡特性。

基于SK-UT-1□胞的研究重点在于表征CD133+ CSCs，揭示其形成肿瘤球的能力——这是干□胞样行为的标志性特征。该亚群在体内具有增强的致瘤潜力，即使少量 □胞（10^4 个）也足以在异种移植模型中引发肿瘤形成。 CD133+□胞对多柔比星等化疗药物具有耐受性，进一步印证其在治疗耐药性中的关键作用。此外，与 CD133−□胞相比，CD133+□胞中CD44、ALDH1和BMI1等癌干□胞相关标志物表达水平显著升高，证实其癌干 □胞身份。

SK-UT-1□胞已成为理解ULMS进展机制及开发潜在治疗策略的关键工具。通过靶向肿瘤内 CD133+癌干样□胞群，有望从转移和化疗耐药的根本原因入手，为改善 ULMS患者预后提供前景广阔的治疗途径。

Tissue	子宫
Disease	混合性中胚层肿瘤，与子宫肌瘤一致（III 级）

Synonyms

- SK UT 1
- SKUT-1
- SKUT1
- Skut1

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮样
Tumourigenic	是，在裸鼠体内。形成纺锤□胞肉瘤

Karyotype

(P8) 低二倍体至高二倍体。表型频率乘积： 0.0590

IDENTIFIERS

Citation

SK-UT-1（Cytion 目录号 300455）

NCBI TaxID	9606
Cellosaurus	CVCL_0533

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Banking information
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EXPRESSION AND SUSCEPTIBILITY

Isoenzymes

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

HANDLING AND CULTURE

Culture medium

EMEM□MEM Eagle□□w□2 mM L-□□□□□w□2.2 g/L NaHCO3□w□EBSS□Cytion □□□□ 820100a□□

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

Supplements

□□□□□□□ 10% FBS □ 1% NEAA

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 × 10⁴ □□□/□□□□
Fluid renewal	□□ 2 □

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	75 □

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BIC: SOLADES1HDB

Ethnicity	高加索人

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