UM-UC-3

305074

GENERAL INFORMATION

Description

UM-UC-3 □胞系来源于人类膀胱癌，特别是高级别过渡 □胞癌（TCC），由一名男性患者建立。由于其在体外和体内均具有强健的生长特性，因此被广泛用于癌症研究。 UM-UC-3 □胞呈现上皮形态，为非整倍体，染色体数目从 59 到 95 不等。这些□胞能在免疫功能低下的小鼠体内形成肿瘤，其组织学特征与原发性肿瘤相似，突出了它们作为膀胱癌临床前模型的实用性。

遗传和分子研究发现，UM-UC-3 □胞发生了重大改变，包括 CDKN2A 和 CDKN2B 等关键肿瘤抑制基因的频繁缺失和突变。这些基因位于膀胱癌中常见的 9p21 区域，导致□胞周期失调。此外，UM-UC-3 还表现出磷脂酰肌醇 3- 激酶（PI3K）信号通路的变化，而 PI3K 是尿路上皮癌肿瘤发生的关键驱动因素。这些特点使其成为研究致癌信号通路和测试靶向疗法的宝贵模型。

UM-UC-3 □胞已被广泛用于治疗研究，特别是探索针对 PI3K/AKT 和 MAPK 信号通路的抑制剂的效果。它们还被用于药物筛选计划，以确定对膀胱癌有效的化合物。该 □胞系在多次传代过程中遗传和表型的稳定性进一步证明了它是癌症生物学和治疗开发领域可靠的研究工具。

Tissue	膀胱
Disease	膀胱癌

Synonyms

- UMUC-3
- UM-UC3
- UMUC3
- UC-3
- University of Michigan-Urothelial Carcinoma-3

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮□胞
Tumourigenic	是

IDENTIFIERS

Citation

UM-UC-3（Cytion 目录编号 305074）

NCBI TaxID	9606
Cellosaurus	CVCL_1783

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Banking information
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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 □□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□

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

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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	□□□□
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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