UM-HMC-1

305716

GENERAL INFORMATION

Description

UM-HMC-1 □一种人黏液表皮样癌细胞系，源自一名 76 岁非裔美国男性患者的前颊腺原发性唾液腺肿瘤。 该细胞系□密歇根大学人类黏液表皮样癌（UM-HMC）细胞系组合中的一个。 UM-HMC-1 携带 CRTC1-MAML2 基因融合（也称为 MECT1-MAML2），这□大多数黏液表皮样癌中具有决定性意义的致癌事件，由 t(11;19)(q21;p13) 染色体易位所致。该融合基因可激活 CREB 靶基因和 Notch 通路组分，从而驱动肿瘤的增殖和存活。
UM-HMC-1 适用于唾液腺黏液表皮样癌生物学、CRTC1-MAML2 融合致癌基因信号传导、CREB 通路激活、Notch 通路失调以及融合基因驱动型癌症的靶向治疗等研究。 该细胞系可用于药物敏感性检测、侵袭与迁移研究，并作为 UM-HMC 多系细胞面板的一部分，用于唾液腺肿瘤生物学的比较表征。

Tissue	唾液腺，前颊腺
Disease	唾液腺黏液表皮样癌
Metastatic site	原发肿瘤部位（前颊腺、唾液腺）

Applications

唾液腺癌研究；CRTC1-MAML2融合致癌基因生物学；CREB/Notch通路研究；黏液表皮样癌的药物敏感性；融合基因驱动的癌症生物学； UM-HMC基因panel研究

Synonyms

- University of Michigan-Human Mucoepidermoid Carcinoma-1

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮样
Cell type	上皮细胞
Doubling time	约24至48小时

IDENTIFIERS

Citation

UM-HMC-1（Cytion 产品编号 305716）

NCBI TaxID	9606
Cellosaurus	CVCL_Y473

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

突变：基因融合，CRTC1 + HGNC，MAML2，名称=CRTC1-MAML2，MECT1-MAML2。

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

HANDLING AND CULTURE

Culture medium

DMEM:Ham's F12□1:1□□w: 3.1 g/L □□□□w: 2.5 mM L-□□□□□w: 15 mM HEPES□w: 0.5 mM □□□□□w: 1.2 g/L NaHCO3□Cytion □□□□ 820400a□□

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

Supplements

□□□□□□□ 10% FBS

Dissociation reagent	Accutase□37°C□20□□
Flask coating	□□□□□□□□□□□□□

Subculturing

□□□□□□□□□□□□□□PBS□□□□□Accutase□□□□□□□□□□□□□8–10□□□□□□□□□□□□□□□300×g□□3□□□□□□□□□□□□□□□□□□□□□□□□□

Split ratio	1 □ 5
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

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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	76 □
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 □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。

Disclaimer

我们提供的细胞仅用于体外实验室研究目的，不用于临床或诊断用途，也不得用于人类或兽医目的。用户必须遵守在研究环境中处理和使用这些细胞的所有适用准则和法规。

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

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