VK2/E6E7

305653

GENERAL INFORMATION

Description

VK2/E6E7□胞系是一种人阴道上皮□胞系，通过人乳头瘤病毒（HPV）16型的E6和E7致癌基因实现永生化。这种永生化方法在延长□胞复制寿命的同时，保留了正常阴道上皮□胞的许多功能和形态特征。VK2/E6E7□胞属于HPV16/E6E7永生化□胞系系列的一部分，该系列还包括宫颈外口（Ect1/E6E7）和宫颈内口（End1/E6E7）上皮□胞，为研究女性下生殖道生物学提供了全面的体外模型。

VK2/E6E7□胞表现出角质形成□胞样形态，在培养中形成组织松散的集落，这与宫颈外口□胞更具分层特征的外观不同。它们表达多种上皮分化标志物，包括□胞角蛋白CK8、CK18、CK19和involucrin。有趣的是，它们还表达 CK10 和 CK13——这两种标志物与多层鳞状上皮的基底层以上分化相关，这表明它们保留了正常阴道上皮□胞的关键特征。此外，VK2/E6E7□胞弱表达聚合型免疫球蛋白受体的分泌组分（SC），该组分通常在阴道组织中缺失，但在该□胞系中却被上调。这些特征使 VK2/E6E7 成为研究阴道上皮功能、宿主-病原体相互作用和黏膜免疫学，以及测试用于阴道内给药的药理学制剂的宝贵工具。

Tissue	阴道，黏膜
Disease	子宫内膜异位症

Applications

三维□胞培养

Synonyms

- Vk2/E6E7
- VK-2/E6E7
- VK2 (E6/E7)
- VK2

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
GMO status	GMO-S1

GMO status details

GMO-S1: This human vaginal epithelial cell line (VK2/E6E7) contains a plasmid construct encoding HPV16 E6/E7 sequences introduced via transfection, supporting immortalization of vaginal epithelium-derived cells. The insert is stably integrated. This classification applies only within Germany and may differ elsewhere.

Biosafety level	2

CHARACTERISTICS

Morphology	上皮□胞
Cell type	上皮□胞
Doubling time	24 小时

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IDENTIFIERS

Citation

VK2/E6E7□Cytion □□□□ 305653□

NCBI TaxID	9606
Cellosaurus	CVCL_6471

EXPRESSION AND SUSCEPTIBILITY

Protein expression

HPV-16 E6/E7

Antigen expression

□□□□□8□CK8□□10□CK10□□13□CK13□□18□CK18□□19□CK19□□□□□□□□□□□□□□M-CSF□□ □□□□□□β1□□□□□□8□IL-8□□□□□□E2□□□□□□□□□□□□□□□□□□□□□□□□

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

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

冷冻保存的□胞系用干冰装运，并用经过验证的隔热包装和足够的制冷剂在整个运输过程中保持约 -78 °C 的温度。收到货后，应立即检查容器，并立即将小瓶转移到适当的储藏室。

DONOR

Donor age	32 年
Ethnicity	未说明

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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