HK-2

305021

GENERAL INFORMATION

Description

HK-2 □胞系是从正常成人肾脏组织中提取的特性良好的人类近端肾小管上皮 □胞系。这些□胞表现出典型的上皮形态，并保留了近端肾小管 □胞的许多生化和功能特性，是研究肾脏生理和病理生理学的宝贵模型。HK-2 □胞以其主动转运能力和刷状缘酶活性而著称，这对它们在肾脏重吸收过程中的作用至关重要。

HK-2 □胞表达一系列转运体和受体，包括葡萄糖、氨基酸和各种离子的转运体和受体，这反映了它们在肾过滤和重吸收过程中的作用。它们对激素的调节也有反应，如甲状旁腺激素和醛固酮，这些激素会影响它们的转运活动。由于这些特点， HK-2 □胞被广泛用于肾毒性研究、药物筛选以及急性肾损伤和慢性肾病等肾脏疾病的研究。

此外，HK-2 □胞还被用于研究肾□胞癌和其他与肾脏相关的癌症。它们提供了一个可靠的体外系统，用于检查 □胞对有毒制剂、氧化应激和缺氧的反应。研究人员还利用 HK-2 □胞探索肾脏纤维化和炎症的分子机制。总之， HK-2 □胞系是肾脏研究的重要工具，它能帮助人们深入了解肾脏的正常功能和疾病的发病机制。

Tissue	肾脏，皮质，近端小管

Synonyms

- Hk-2
- HK2
- Human Kidney-2

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮□胞

IDENTIFIERS

Citation

HK-2（Cytion 产品编号 305021）

NCBI TaxID	9606
Cellosaurus	CVCL_0302

EXPRESSION AND SUSCEPTIBILITY

Receptors expressed

表皮生长因子（EGF），表达

Protein expression

碱性磷酸酶、γ 谷氨酰转肽酶、亮氨酸氨肽酶、酸性磷酸酶、 □胞角蛋白、α 3 ′ β 1 整合素、纤连蛋白

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

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

Cytion GmbH
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