ARPE-19

305025

GENERAL INFORMATION

Description

ARPE-19 □胞系来源于一名 19 岁男性的视网膜色素上皮□胞（RPE），其功能特征与原生 RPE □胞相似，因此成为眼科研究中一个重要的上皮 □胞模型。这些□胞被用于脊椎动物视网膜和视网膜色素上皮生理学的相关研究。当在三维 □胞培养系统中或以□胞单层形式在覆有层粘蛋白的过滤器上用低血清培养基培养时， ARPE-19 □胞会实现形态极化并形成紧密连接，表现出与体内观察到的类似的跨上皮阻力。

ARPE-19 □胞表达 CRALBP 和 RPE-65 等 RPE 特异性标记，是了解视网膜色素上皮色素沉着过程（包括黑色素合成和黑色素小体含量）的绝佳模型。

ARPE-19 人体□胞的应用扩展到眼部药代动力学和渗透性研究，为眼部化疗疗效和视网膜屏障方面的考虑提供了见解。在研究药代动力学与黑色素含量之间的相互作用时， RPE-19 □胞提供了有关药物结合和吸收的宝贵数据。由于 RPE-19 □胞表达了参与早期眼球形成和肌肉收缩的网络，因此有助于我们了解视网膜外植体和上皮 □胞在眼球发育中的作用。

总之，ARPE-19 □胞系是眼科研究中的一个重要模型，能让我们深入了解视网膜的生理学、色素沉着过程和眼科治疗的疗效。

Tissue	眼睛、视网膜色素上皮□胞、视网膜

Synonyms

- ARPE19
- Adult Retinal Pigment Epithelial cell line-19
- NTC-200
- NTC200

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	上皮□胞
Tumourigenic	是

IDENTIFIERS

Citation

ARPE-19（Cytion 产品编号 305025）

NCBI TaxID	9606
Cellosaurus	CVCL_0145

EXPRESSION AND SUSCEPTIBILITY

Protein expression

Rpe 特异性标记物 Cralbp 和 Rpe-65

Antigen expression

RPE 特异性标记 CRALBP 和 RPE-65

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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

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	19□

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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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