GC-1 spg

300375

GENERAL INFORMATION

Description

GC-1 spg □胞系是通过转染 pSV3-neo 质粒实现永生化的，pSV3-neo 质粒含有 SV40 大 T 抗原的编码序列和新霉素抗性。这种基因修饰不仅提供了对某些抗生素的抗性，还通过改变□胞周期调节促进了□胞的持续生长，从而绕过了原代□胞典型的海弗里克极限。这种永生化过程可使□胞保持增殖能力，同时保留精原□胞的关键表型特征。

从表型上看，GC-1 spg □胞系显示出介于 B 型精原□胞和初级精母□胞之间的过渡阶段的特征，使其成为研究精子发生早期阶段的一个特别相关的模型。这种 □胞表达两种睾丸特异性同种蛋白：□胞色素 c 和乳酸脱氢酶 C4。这些标记对于研究精子发生过程中的□胞代谢和能量管理至关重要，反映了生殖□胞中活跃的独特代谢途径。这些特异性同种蛋白的表达强调了该□胞系在探索睾丸□胞功能和发育的生化和生理方面的实用性。

Tissue	睾丸

Applications

三维□胞培养

Synonyms

- GC-1spg
- GC-1
- GC1-SPG

CLASSIFICATION

Organism	Mouse
Sex	Male
Growth properties	Adherent
GMO status	GMO-S1

GMO status details

GMO-S1: This murine testis cell line (GC-1 spg) contains an SV40 T-Antigen expression plasmid (pSV3neo) including a Tn5-neo resistance marker, supporting immortalization. The construct is stably integrated into mouse spermatogonial cells. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Morphology	上皮□胞
Cell type	精母□胞

IDENTIFIERS

Citation

GC-1 spg（Cytion 目录号 300375）

NCBI TaxID	10090
Cellosaurus	CVCL_8872

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Banking information
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BIC: SOLADES1HDB

EXPRESSION AND SUSCEPTIBILITY

Viruses

□□□□□□□□□ 40 (SV40) T □□

HANDLING AND CULTURE

Culture medium

DMEM□w□4.5 □/□□□□□w□4 □□□ L-□□□□□w□3.7 □/□ NaHCO3□w□1.0 □□□□□□□□Cytion □□ 820300a□□

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 □□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□

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

Breed / subspecies	BALB/c
Donor age	10 □

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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