

Product sheet

RenCa | 400321

RenCa

Description

RenCa (BALB/c) is a murine cell line derived from a spontaneous renal adenocarcinoma in a BALB/c mouse. It is a highly metastatic, epithelial cell line that grows in suspension culture. RenCa cells are characterized by their ability to form large, multicentric colonies in soft agar and to metastasize to various organs, including the lungs, liver, and spleen. The cell line is maintained in DMEM supplemented with 10% fetal bovine serum (FBS) and is typically used for studies on tumor biology, metastasis, and drug response.

Organism Murine

Tissue Kidney

Disease Renal adenocarcinoma

Synonyms RenCa, RENCA, Renal adenocarcinoma cell line

Characteristics

Breed/Subspecies BALB/c

Age 6 weeks

Gender Male

Morphology Epithelial

Growth properties Adherent

References

Citation RenCa (RenCa) Cytion 400321

Biosafety level 1

NCBI_TaxID 10090

CellosaurusAccession CVCL_2174

GMO Status GMO-S1: RenCa (RenCa) Cytion 400321

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Characteristics

Tumorigenic Yes, orthotopic xenograft

Virus susceptibility Susceptible to MAP (Sendai, Ektromelie, Polyoma, K-Virus, Kilham, LCM, M.pulmonis, MVM, Theiler's GD VII, toolan's H-1, MHV, RCV/SDA, M-Adenovirus)

Culture

Culture Medium RPMI 1640, w: 2.0 mM L-glutamine, w: 2.0 g/L NaHCO3 (Cytion 820700a)

Supplements 10% FBS

Dissociation Reagent Trypsin

Doubling time 47 hours

Subculturing Cells are grown in T25 flasks in 3-5 ml of medium. Cells are harvested by trypsinization and centrifugation. Cells are resuspended in 1-3 ml of medium and seeded into new flasks.

Split ratio 1:4 to 1:8

Seeding density 2×10^4 cells/cm²

Fluid renewal 2-3 times per week

Post-Thaw Recovery 93% recovery. Cells are cultured in 24-48 hours.

Freeze medium Cells are frozen in 10% FBS + 10% DMSO.

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Thawing and Culturing Cells

1. Thaw the cells quickly in a water bath at 37°C. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed medium.
2. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ in a humidified atmosphere.
3. Monitor the cells for attachment and growth. Change the medium after 24 hours.
4. Once the cells are established, they can be passaged. Seed into fresh medium at 70% confluency.
5. The cells can be grown in 15 cm² or 8 cm² flasks.
6. Seed density: 300 x 10³ cells per flask.
7. Passage frequency: 10 days.
8. Storage: Cryopreserve cells in liquid nitrogen.

Incubation Atmosphere 37°C, 5% CO₂, humidified

Flask Coating Yes

Freezing Procedure Cryopreserve cells in liquid nitrogen at -78°C.

Shipping Conditions Cryopreserve cells in liquid nitrogen at -78°C.

Storage Conditions Cryopreserve cells in liquid nitrogen at -150 °C for 196 days.

RenCa / HLA

Sterility

RenCa is free of mycoplasmas, PCR inhibitors, and other contaminants.

RenCa is free of endotoxins, mycoplasmas, and other contaminants.

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STR

Amelogenin: x,y

M_18-3: 18, 20, 21, 22

M_4-2: 21

M_6-7: 12

M_3-2: 14,15

M_19-2: 13,14

M_7-1: 23.2, 25.2

M_1-1: 15, 16, 17, 18

M_8-1: 13

M_2-1: 15, 16, 17

M_15-3: 22.3, 23.3

M_6-4: 18,19

M_11-2: 17,18

M_1-2: 16, 18, 19

M_17-2: 15,17

M_12-1: 16,17

M_5-5: 14, 15, 16

M_X-1: 25

M_13-1: 16

Human D4/D8: -