

UM-SCC-124 Cells | 305723

General information

Description

UM-SCC-124 is a human HNSCC cell line from the University of Michigan UM-SCC panel. It is part of the oral cavity SCC series characterized by exome sequencing in the genomic landscape study by Brenner et al. (2019). The line grows as an adherent monolayer and is used for comparative molecular and pharmacological studies within the UM-SCC oral cavity panel.

Applicable in HNSCC oral cavity research, drug sensitivity, mutational landscape analysis, radiation response, and UM-SCC multi-line panel studies.

Organism

Human

Tissue

Head and neck, oral cavity

Disease

Head and neck squamous cell carcinoma (HNSCC), oral cavity

Applications

HNSCC oral cavity research; drug sensitivity; mutational landscape analysis; radiation response; UM-SCC panel studies

Characteristics

Age

Age unspecified

Gender

Sex unspecified

Ethnicity

Ethnicity unspecified

Morphology

Epithelial-like

Cell type

Epithelial cells

Growth properties

Adherent

Regulatory Data

Citation

UM-SCC-124 (Cytion catalog number 305723)

Biosafety level

1

NCBI_TaxID

9606

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Biomolecular Data

Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO ₃ , w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
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Supplements	Supplement the medium with 10% FBS
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Dissociation Reagent	Accutase
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Doubling time	approx. 24 to 48 hours
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Subculturing	Remove medium, wash with PBS without calcium and magnesium, cover with Accutase, incubate 8–10 min at RT, resuspend in medium, centrifuge 300×g 3 min, discard supernatant, reseed in fresh medium.
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Split ratio	1 to 5
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Seeding density	2 to 4 × 10 ⁴ cells/cm ²
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Fluid renewal	Every 2 to 3 days
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Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.
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Thawing and Culturing Cells

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. 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.
3. 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.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. 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.
6. Centrifuge the mixture at $200 \times g$ for 5 minutes, carefully discard the supernatant containing freezing medium.
7. Follow the procedure described under Post-Thaw Recovery

Incubation Atmosphere

37°C , 5% CO_2 , humidified atmosphere.

Shipping Conditions

Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately -78°C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.

Storage Conditions

For long-term preservation, place vials in vapor-phase liquid nitrogen at about -150 to -196°C . Storage at -80°C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis