**Product sheet**

# UM-SCC-122 Cells | 305721

## General information

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| **Description** | UM-SCC-122 is a human head and neck squamous cell carcinoma (HNSCC) cell line from the University of Michigan UM-SCC panel. It grows as an adherent monolayer with epithelial-like morphology and is used as part of the multi-line UM-SCC panel for comparative preclinical HNSCC research.<br><br>UM-SCC-122 is applicable in HNSCC drug sensitivity studies, radiation response, EGFR and PI3K pathway analysis, invasion and migration assays, and comparative UM-SCC panel characterization. It is suitable for pharmacological screening and xenograft models in immunocompromised hosts. |
| **Organism** | Human |
| **Tissue** | Head and neck, oral cavity |
| **Disease** | Head and neck squamous cell carcinoma (HNSCC) |
| **Applications** | HNSCC research; drug sensitivity; radiation response; EGFR/PI3K signalling; UM-SCC panel studies; invasion assays; xenograft models |

## Characteristics

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| **Age** | 63 years |
| **Gender** | Male |
| **Ethnicity** | Ethnicity unspecified |
| **Morphology** | Epithelial-like |
| **Cell type** | Epithelial cells |
| **Growth properties** | Adherent |

## Regulatory Data

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| **Citation** | UM-SCC-122 (Cytion catalog number 305721) |
| **Biosafety level** | 1 |
| **NCBI_TaxID** | 9606 |

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## Biomolecular Data

## Handling

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| **Culture Medium** | DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a) |
| **Supplements** | Supplement the medium with 10% FBS |
| **Dissociation Reagent** | Accutase, 10 min., 37°C |
| **Doubling time** | 48 to 72 hours |
| **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. |
| **Split ratio** | 1 to 5 |
| **Seeding density** | 1 to 3 × $10^4$ cells/$cm^2$ |
| **Fluid renewal** | Every 2 to 3 days |
| **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.<br>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.<br>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.<br>4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.<br>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.<br>6. Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.<br>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