**Product sheet**

# SW527 Cells | 300640

## General information

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| **Description** | The SW527 cell line is a human breast carcinoma cell line derived from a Caucasian adult patient. It was established in the early 1970s and has been included in foundational studies characterizing tumorigenicity in immunodeficient models. In one such study, SW527 successfully formed tumors in nude mice following subcutaneous inoculation of $6 \times 10^6$ cells, supporting its malignant origin. Histopathological analysis of the resulting tumors showed features consistent with the original human carcinoma, confirming its relevance as a breast cancer model.<br><br>SW527 has been authenticated as a tumor-derived line of G6PD type B, a classification that helps exclude contamination with HeLa cells, which is a critical concern in historical cell line collections. Despite this, comprehensive molecular or immunological profiling of SW527 appears limited in recent large-scale datasets.<br><br>Overall, SW527 remains a validated breast carcinoma model, primarily supported by in vivo tumorigenicity data. Additional molecular profiling would be beneficial to broaden its utility in mechanistic or drug discovery research. |
| **Organism** | Human |
| **Tissue** | Breast; Mammary gland |
| **Disease** | Breast adenocarcinoma |
| **Synonyms** | SW-527, SW 527 |

## Characteristics

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| **Age** | 70 years |
| **Gender** | Female |
| **Ethnicity** | Caucasian |
| **Morphology** | Epithelial |
| **Cell type** | Epithelial |
| **Growth properties** | Adherent |

## Regulatory Data

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| **Citation** | SW527 (Cytion catalog number 300640) |
| **Biosafety level** | 1 |
| **NCBI_TaxID** | 9606 |
| **CellosaurusAccession** | CVCL_3799 |

## Biomolecular Data

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| **Mutational profile** | Mutation: p.Gln1338Ter, Homozygous; Mutation: p.Gly12Val, Homozygous; Mutation: p.Arg273His, Heterozygous; Mutation: p.Pro309Ser, Heterozygous |

## Handling

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| **Culture Medium** | DMEM:Ham's F12 (1:1), w: 3.1 g/L Glucose, w: 2.5 mM L-Glutamine, w: 15 mM HEPES, w: 0.5 mM Sodium pyruvate, w: 1.2 g/L NaHCO3 (Cytion article number 820400a) |
| **Supplements** | Supplement the medium with 10% FBS |
| **Dissociation Reagent** | Accutase |
| **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