SW527

300640

GENERAL INFORMATION

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 6×10^6 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.
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.
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.

Tissue	Breast; Mammary gland
Disease	Breast adenocarcinoma

Synonyms

- SW-527
- SW 527

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	Epithelial
Cell type	Epithelial

IDENTIFIERS

Citation

SW527 (Cytion catalog number 300640)

NCBI TaxID	9606
Cellosaurus	CVCL_3799

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

Mutation: p.Gln1338Ter, Homozygous; Mutation: p.Gly12Val, Homozygous; Mutation: p.Arg273His, Heterozygous; Mutation: p.Pro309Ser, Heterozygous

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HANDLING AND CULTURE

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)

Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	Accutase

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 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
Follow the procedure described under Post-Thaw Recovery

QUALITY CONTROL AND CRYOPRESERVATION

Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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.

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.

DONOR

Donor age	70 years
Ethnicity	Caucasian

LEGAL AND SAFETY

Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Material Transfer Agreement required	Yes

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