Product sheet

SW626 Cells | 305881

General information

Description	SW626 is a human ovarian cancer cell line established from an adult patient with serous cystadenocarcinoma of the ovary. It has been widely utilized as a model for epithelial ovarian cancer (EOC), particularly for studying tumor biology, drug response, and molecular heterogeneity in high-grade serous carcinoma. Histologically, the SW626 cell line retains characteristics consistent with its serous adenocarcinoma origin and exhibits tumorigenic potential when xenografted into immunocompromised mice, producing solid tumors that recapitulate features of the primary neoplasm. Genomic profiling of SW626 reveals common alterations frequently observed in ovarian cancers, including disruptions in key regulatory pathways such as TP53 and PI3K/AKT. Molecular analyses have shown that SW626 carries chromosomal aberrations and gene expression patterns representative of high-grade serous ovarian cancer, making it a relevant model for investigating oncogenic signaling, therapeutic vulnerabilities, and resistance mechanisms. The cell line has been included in large-scale cancer genomics projects, where it contributes to drug screening platforms and comparative studies with other ovarian cancer models, helping to define molecular subtypes and inform precision oncology approaches.
Organism	Human
Tissue	Metastatic
Disease	Colon adenocarcinoma
Synonyms	SW-626, SW 626

Characteristics

Age	46 years
Gender	Female
Ethnicity	Caucasian
Cell type	Epithelial
Growth properties	Adherent

Regulatory Data

Citation	SW626 (Cytion catalog number 305881)

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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1725

Biomolecular Data

Isoenzymes	AK-1, 1 ES-D, 1 G6PD, B GLO-I, 1 Me-2, 1 PGM1, 1 PGM3, 1
Tumorigenic	Yes; Yes, in nude mice produces well differentiated papillary adenocarcinomas consistent with ovarian primary
Mutational profile	Mutation: APC, Simple, p.Arg976fs*9 (c.2926_2927insA), Homozygous, KRAS, Simple, p.Gly12Val (c.35G>T), Heterozygous, Simple, p.Asp351His (c.1051G>C), Homozygous, TP53, Simple, p.Gly262Val (c.785G>T), Homozygous
Karyotype	Hypertetraploid; modal number = 104. The rate of higher ploidies was 23%. The markers der(2)t(2;5)(q35;q31); del(8)(q13q22); del(12)(q13); t(q9q13) and two others were common to most cells. Generally there were two copies of der(2) and three copies of del(8) per cell. The t(3;11)(p21;q25) and i(15q) markers were seen in some cells. Many cells had 8 copies of N3, N7, N9, N19 and N20, but only two copies of N2. Normal 8 was absent. There were four copies of X, and Y was not found.

Handling

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
Fluid renewal	2 to 3 times per week
Freeze medium	As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

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 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

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

Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.

To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.