

SW756 Cells | 305588

General information

Description

SW756 is a human cervical carcinoma cell line derived from a primary squamous cell carcinoma of the cervix in an adult female. It was included in early comprehensive cell line characterization efforts and has been validated as free from HeLa contamination based on glucose-6-phosphate dehydrogenase (G6PD) isoenzyme typing, which confirmed it to be type B, unlike HeLa cells, which are type A. This ensures its authenticity as a distinct cervical cancer model.

SW756 is classified as a squamous cell carcinoma and has been used in various genomic and proteomic profiling studies, including large-scale pharmacogenomic and functional genomics datasets. In proteomic profiling efforts such as the ProCan-DepMapSanger dataset, SW756 contributes to a broader understanding of protein expression regulation, particularly in relation to post-transcriptional modifications and drug response correlations. Such datasets have shown that proteomic data from SW756, like other cell lines, can reveal patterns of lineage-specific expression and regulatory mechanisms that are not always evident at the transcriptomic level, highlighting its utility in integrated multi-omic analyses.

Organism

Human

Tissue

Uterus, cervix

Disease

Squamous cell carcinoma

Synonyms

SW-756, SW 756

Characteristics

Age

46 years

Gender

Female

Ethnicity

Caucasian

Growth properties

Adherent

Regulatory Data

Citation

SW756 (Cytion catalog number 305588)

Biosafety level

1

NCBI_TaxID

9606

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CellosaurusAccession CVCL_1727

Biomolecular Data

Mutational profile Mutation: p.Gly12Cys, Heterozygous

Handling

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

Doubling time 1.6 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.
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