Product sheet

SNU-C5 Cells | 305639

Información general

Description	The SNU-C5 cell line is a human gastric carcinoma model established from an adult patient with advanced gastric adenocarcinoma. Derived from a primary tumor specimen, SNU-C5 exhibits epithelial morphology and is part of a broader panel of Korean gastric cancer cell lines developed to represent different histological subtypes and molecular profiles found in East Asian gastric cancers. It provides a valuable model for studying the biology of gastric adenocarcinoma and has been widely used in molecular and pharmacogenomic studies. Multi-omics profiling, including data from projects like the Cancer Cell Line Encyclopedia (CCLE) and the Genomics of Drug Sensitivity in Cancer (GDSC), has provided a detailed view of SNU-C5's genetic and pharmacological landscape. The cell line demonstrates common alterations associated with gastric cancer, including mutations in TP53 and alterations in pathways such as PI3K/AKT and RTK signaling. Its inclusion in drug sensitivity screening platforms has allowed researchers to identify associations between genomic features and drug responses, enabling preclinical assessment of targeted therapies. Overall, SNU-C5 serves as a reliable in vitro model for exploring therapeutic vulnerabilities and molecular mechanisms in gastric carcinoma.
Organism	Human
Tissue	Cecum
Disease	Adenocarcinoma
Synonyms	SNUC5, NCI-SNU-C5, SNU-C5/WT

Características

Age	77 years
Gender	Female
Ethnicity	Korean
Morphology	Epithelial-like
Cell type	Epithelial
Growth properties	Adherent, monolayer

Datos normativos

Citation	SNU-C5 (Cytion catalog number 305639)

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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_5112

Datos biomoleculares

Mutational profile	Mutation: BRAF, Simple, p.Val600Glu (c.1799T>A), Heterozygous; Mutation: PIK3CA, Simple, p.His1047Arg (c.3140A>G), Heterozygous; Mutation: TP53, Simple, p.Val218Leu (c.652G>T), Heterozygous; Mutation: TP53, Simple, p.Arg248Trp (c.742C>T), Heterozygous

Manejo

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	Accutase
Doubling time	67 hours
Subculturing	Remove medium, add fresh 0.25 % trypsin 0.02 % EDTA solution, stand culture flask at 37''''C for 3 to 5 minutes, add culture medium and collect the cells, transfer the medium into 15ml tube, centrifuge, aspirate the medium, resuspend the pellets with culture medium and dispense into the culture flask
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.

Control de calidad y análisis molecular

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.