Product sheet

SNU-638 Cells | 305634

Información general

Description	The SNU-638 cell line is a human gastric carcinoma model established from the ascitic fluid of a male gastric cancer patient. It exhibits poor differentiation and minimal desmoplasia, and in vitro it grows in a mixed pattern with heterogeneous density and poor attachment to the culture substrate. The cells maintain a round to oval contour and display a low nuclear-to-cytoplasmic ratio, with limited development of microvilli. These characteristics reflect features commonly associated with aggressive gastric cancer phenotypes and make the line suitable for studying poorly differentiated gastric adenocarcinomas. At the molecular level, SNU-638 does not harbor mutations in the *c-Ki-ras* gene but does express high levels of tumor-associated markers such as CA 19-9 and tissue polypeptide antigen (TPA), with absent alpha-fetoprotein (AFP) expression. It also carries a *TP53* gene mutation, which is frequently found in gastric cancers and plays a central role in tumorigenesis. Genomic profiling revealed that SNU-638 lacks MET amplification or overexpression, categorizing it as MET-negative with minimal dependency on the MET signaling pathway. This molecular profile makes SNU-638 a valuable control cell line in studies targeting MET or evaluating the efficacy of MET inhibitors in gastric cancer.
Organism	Human
Tissue	Gastric
Disease	Adenocarcinoma
Metastatic site	Ascites
Synonyms	SNU638

Características

Age	48 years
Gender	Male
Ethnicity	Korean
Morphology	Epithelial-like
Cell type	Epithelial
Growth properties	Adherent, monolayer

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Datos normativos

Citation	SNU-638 (Cytion catalog number 305634)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0102

Datos biomoleculares

Mutational profile	Mutation: MET, Simple, p.Asn375Ser (c.1124A>G), Unspecified; Mutation: TP53, Simple, p.Arg282Trp (c.844C>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% heat-inactivated FBS
Dissociation Reagent	Accutase
Doubling time	25 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.