SNU-620

305910

GENERAL INFORMATION

Description

SNU-620 cells are a human gastric carcinoma cell line established from malignant ascites of an adult patient with poorly differentiated adenocarcinoma. They are part of a panel of gastric cancer cell lines developed to represent diverse histopathological and biological characteristics of gastric tumors. In vitro, SNU-620 cells exhibit a scattered growth pattern with heterogeneous cell distribution and limited attachment to culture substrates, reflecting their origin from a poorly differentiated tumor with minimal desmoplasia. Morphologically, the cells display predominantly round-to-oval contours with a relatively low nuclear-to-cytoplasmic ratio and poorly developed microvilli, as observed through ultrastructural analysis.
SNU-620 cells contribute to the study of gastric cancer biology through their expression of tumor-associated antigens and molecular alterations characteristic of gastric malignancies. Broader characterization of related SNU gastric cancer lines revealed frequent mutations in key oncogenes and tumor suppressors, including p53, highlighting their relevance for investigating genetic instability and oncogenic signaling pathways in gastric carcinoma. These features make SNU-620 cells a useful in vitro model for studies on tumor progression, metastasis, and therapeutic response in gastric cancer.

Tissue	Metastatic
Disease	Gastric adenocarcinoma
Metastatic site	Ascites

Synonyms

- SNU620
- NCI-SNU-620

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Suspension
Biosafety level	1

CHARACTERISTICS

Doubling time	31 hours

IDENTIFIERS

Citation

SNU-620 (Cytion catalog number 305910)

NCBI TaxID	9606
Cellosaurus	CVCL_5079

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Banking information
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HANDLING AND CULTURE

Culture medium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

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

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	None
Seeding density	0.1 to 1 x 10^6 /ml

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	59 years
Ethnicity	Korean

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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