

SNU-620 Cells | 305910

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.

Organism

Human

Tissue

Metastatic

Disease

Gastric adenocarcinoma

Metastatic site

Ascites

Synonyms

SNU620, NCI-SNU-620

Age

59 years

Gender

Female

Ethnicity

Korean

Growth properties

Suspension

Citation

SNU-620 (Cytion catalog number 305910)

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Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_5079

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 None

Doubling time 31 hours

Seeding density 0.1 to 1 x 10⁶ /ml

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.