Product sheet

SNU-620 Cells | 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.
Organism	Human
Tissue	Metastatic
Disease	Gastric adenocarcinoma
Metastatic site	Ascites
Synonyms	SNU620, NCI-SNU-620

Characteristics

Age	59 years
Gender	Female
Ethnicity	Korean
Growth properties	Suspension

Regulatory Data

Citation	SNU-620 (Cytion catalog number 305910)

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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_5079

Biomolecular Data

Handling

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 10^6 /ml
Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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 x 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