PANC 08.13

305391

GENERAL INFORMATION

Description

The PANC 08.13 cell line, also known as PL9, is a pancreatic cancer cell model derived from adenocarcinoma. It has been included in studies focused on understanding genomic variations, including allelic loss, homozygous deletions, and broader chromosomal instability. This cell line is part of an extensive set of pancreatic cancer models used to analyze somatic alterations in cancer cells, particularly in the absence of matched normal tissues, making it ideal for high-resolution genetic mapping.
In a study utilizing Affymetrix 100K SNP arrays, PANC 08.13 was examined alongside 25 other pancreatic cancer cell lines. These arrays allowed for high-density analysis of single nucleotide polymorphisms (SNPs) and revealed the allelic status across the genome without requiring matched normal samples. Such studies help identify critical regions of allelic loss (LOH), gene deletions, and chromosomal recombination events, which are frequent in pancreatic cancer cells.
PANC 08.13's genetic characterization includes frequent mutations in driver genes typically associated with pancreatic cancer, such as KRAS, TP53, CDKN2A, and SMAD4. These genetic defects are hallmarks of pancreatic ductal adenocarcinoma and contribute to uncontrolled cellular proliferation, disrupted cell cycle regulation, and defective apoptosis mechanisms. Studies leveraging cell lines like PANC 08.13 allow for the development of targeted therapies and the identification of novel therapeutic vulnerabilities in pancreatic cancer.

Tissue	Pancreas
Disease	Adenocarcinoma

Applications

3D cell culture, Cancer research

Synonyms

- Panc 8.13
- Panc-08.13
- PANC-08-13
- Panc_08_13
- Panc08.13
- Panc8.13
- Panc-8_13
- Panc-813
- PANC 813
- Panc813
- PANC813
- PANC0813
- Panc0813
- Pa14C
- PL9
- PL-9

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

CHARACTERISTICS

Morphology	Epithelial-like
Cell type	Epithelial cell
Tumourigenic	Yes; Yes in nude or SCID mice
Doubling time	20 hours

IDENTIFIERS

Citation

PANC 08.13 (Cytion catalog number 305391)

NCBI TaxID	9606
Cellosaurus	CVCL_1638

EXPRESSION AND SUSCEPTIBILITY

Antigen expression

MHC class I +; MHC class II -

Oncogenes

K-ras+

Mutational profile

Mutation: KRAS, Simple, p.Gly12Asp (c.35G>A), Homozygous; Mutation: SMAD4, Simple, p.Cys123Metfs*2 (c.366dupA) (c.366_367insA), Homozygous

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 15% FBS, 0.01 mg/ml Insulin

Dissociation reagent	Accutase

Subculturing

For routine adherent cell culture: Aspirate the old culture medium from the adherent cells, and wash them with PBS to remove any remaining medium. After aspirating the PBS, add the appropriate volume of Trypsin/EDTA solution based on the culture vessel size (e.g., 1 ml for a T25 flask, 3 ml for a T75 flask) and incubate at room temperature or 37°C until the cells detach (5-10 minutes). Monitor detachment under a microscope, and gently tap the vessel if necessary to release the cells. Once detached, add complete medium to inactivate the Trypsin/EDTA, gently resuspend the cells, and transfer an aliquot of the cell suspension into a new culture vessel containing fresh medium. Place the vessel in an incubator set to 37°C with 5% CO_2, and change the medium every 2-3 days.

Seeding density	1-3 x 10^4/cm^2
Fluid renewal	2 to 3 times per week

Cytion GmbH
Nikola-Tesla-Str. 3
69124 Heidelberg
Tel: +49 (0)6221 405780
info@cytion.com
cytion.com

Registered office Heidelberg
VAT ID: DE283292917
Local court Mannheim - HRB 714394
CEO / Geschäftsführer: Jonathan Steubing

Banking information
Sparkasse Heidelberg
IBAN: DE35 6725 0020 0009 2076 86
BIC: SOLADES1HDB

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 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

QUALITY CONTROL AND CRYOPRESERVATION

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.

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.

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	85 years
Ethnicity	Caucasian

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