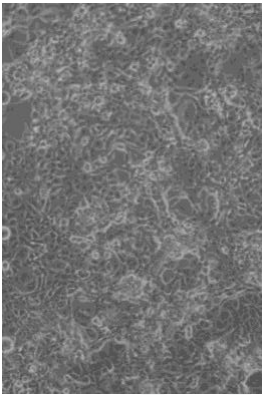


Product Summary

Human Pancreatic Cancer (PANC-1) Cells
Catalog Number: CR1016-500

Product Overview	
Product Name	Human Pancreatic Cancer (PANC-1) Cells
Catalog #s	CR1016-500
Quantity	One vial (approx. 500,000 cells)
Product Form	Frozen
Cell Type	Human Pancreatic Carcinoma
Reagents Needed	Customer choice of high-grade or fully defined Fetal Bovine Serum (FBS) (not included) Penicillin/Streptomycin/Amphotericin B solution or Penicillin/Streptomycin solution, 100x (not included) ¹

Product Description
<p>Human Panc-1 Pancreatic Cancer Cells</p> <p>Human Panc-1 Pancreatic Cancer Cells are a well-established human pancreatic cancer cell line derived from a pancreatic ductal adenocarcinoma (PDAC) isolated from a 56-year-old male donor [i]. Moreover, these cells exhibit an epithelial morphology and adhere to standard cell culture surfaces. Thus, Panc-1 cells are widely utilized in cancer research due to their metastatic potential and resistance to differentiation, making them a robust model for studying pancreatic cancer progression, therapeutic interventions, and drug resistance mechanisms.</p> <p>Panc-1 cells play a crucial role in research on tumor migration, keratin reorganization, and cytoskeletal changes. Therefore, studies have highlighted their involvement in calcium-mediated actin resetting, a key process in cellular adaptation to physiological stress [ii]. Their ability to grow in both 2D and 3D culture systems makes them valuable for cancer research, high-throughput screening, and assay development. These cells naturally form clumps in culture, but trypsin treatment prevents aggregation [iii].</p> <p>Human Panc-1 cells provide a reliable and well-characterized model for pancreatic cancer research, offering insights into tumor progression, metastasis, and therapeutic targeting. Their adaptability for both traditional and advanced culture techniques makes them a valuable asset for preclinical and translational research.</p> <p>Product Specifications:</p> <ul style="list-style-type: none"> ● Source: Pancreatic ductal adenocarcinoma from a 56-year-old male donor ● Cell Type: Human pancreatic cancer epithelial cell line ● Morphology: Adherent, epithelial-like with a tendency to form clumps ● Applications: <ul style="list-style-type: none"> ○ Pancreatic cancer research and metastasis studies ○ Drug screening and resistance modeling ○ 3D culture and tumor microenvironment studies ○ High-throughput assay development ● Growth Characteristics: Metastatic potential with poor differentiation capacity <p>Related Products for Human Panc-1 Cells:</p> <ul style="list-style-type: none"> ● Human Panc-1 Expansion Media (MR1012) ● Human Panc-1 Research Starter Kit (BR1002) <p>Shipping & Storage:</p> <ul style="list-style-type: none"> ● Vial Size: Approximately 500,000 cells ● Shipping Conditions: Shipped on dry ice to maintain viability ● Storage Recommendation: Store in liquid nitrogen vapor phase for long-term preservation

Product Image


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Note: This product is designed and tested to function with Cellular Engineering Technologies Inc. ("CET") product MR1012 Human PANC-1 Expansion Media (not included). Although investigators are welcome to use this product with other media formulations, CET cannot and will not guarantee this product's performance. Additionally, such use of third-party media with this product will void CET's warranty should they not function as indicated. Please refer to CET's Terms & Conditions, available at www.cet.bio.



Cell Characteristics

Growth Properties	Adherent
Donor Age	56 years old
Ethnicity	Caucasian
Gender	Male

Media Formulation Instructions (for MR1012 Human PANC-1 Expansion Media not included)

Defrosting / Preparation	Defrost 50mL of FBS (not included) and 5mL of antibiotic/antimycotic solution (not included) in a 37°C water bath until ice in the tubes is no longer visible. Immediately disinfect the tubes and the bottle containing this base media with 70% isopropanol (not included).
Mixing	Working in a laminar flow hood, remove 5mL of Human PANC-1 Expansion Media (MR1012) (not included) from the bottle and discard. This and all other procedures must be done in a sterile manner. Add 50mL of FBS to the base media. Add 5mL of the antibiotic/antimycotic solution to the base media ¹ . Cap the bottle containing the mixed liquid solution and gently swirl a few times. This formulated media is now considered complete media and ready to use with cells.

Cell Thawing and Plating Instructions

Thawing	Remove the Human PANC-1 Cells vials from dry ice or a storage unit. Defrost the vial of cells in a 37°C water bath with constant, moderate agitation until the ice in the ampoule is barely visible. DO NOT OVERTHAW. Immediately disinfect with 70% isopropanol (not included).
Plating	Working in a laminar flow hood, open the vial and transfer the contents to a sterile 15 mL tube. Very slowly, add approximately 10 mL of complete media (see Media Formulation Instructions), pre-warmed to 37°C before use. Centrifuge suspended cells at 200 x g for 10 minutes. Decant the medium and gently resuspend the pellet in the appropriate amount of complete media necessary to achieve a plating density of 20,000 cells/cm ² of surface area. After 24 hours, aspirate media from the flask or dish, rinse with 1X Dulbecco's Phosphate Buffered Saline (not included), and replenish with fresh complete media, pre-warmed to 37°C before use.
Observation/Expansion	It is normal for PANC-1 cells to grow slowly initially for one week post-thaw. It is also normal for some cells to be shed during media changes. PANC-1 cells tend to grow in clusters rather than discrete monolayers. Subculture cells at a 1:3 split ratio using 0.25% Trypsin/EDTA (not included).

Storage and Stability

	Storage Temperature	Storage Time
Human Pancreatic Cancer (PANC-1) Cells	Upon arrival, place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use	12 months
Human PANC-1 Expansion Media (not included)	4°C	3 months
complete media (see Media Formulation Instructions)	2-8°C	Not applicable

Avoid repeated freeze-thaw cycles for cells. Avoid repeated exposure to room temperature and light for media.

Publications and Product Citations

[Nab-paclitaxel interrupts cancer-stromal interaction through C-X-C motif chemokine 10-mediated interleukin-6 downregulation in vitro](#)

Feng, R. et al. | Cancer Science 2018 AUG

Department of Surgery, Institute of Biomedical Sciences, Tokushima University of Graduate School.

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CELLULAR ENGINEERING TECHNOLOGIES, INC.

2500 Crosspark Road, Suite E110 Coralville, IA 52241

T: (319) 665-3000 F: (319) 665-3003

Email: support@cet.bio

www.cet.bio

¹ These solutions should be portioned in 5mL aliquots, stored at -20°C, and never frozen/thawed. Although antimycotics are unnecessary, CET highly recommends their usage for long-term cell culture. Antibiotics and antimycotics should not be used as an alternative to proper aseptic techniques.

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