

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>PANC-1 is a human pancreatic cancer cell line isolated from a pancreatic ductal adenocarcinoma derived from the tissue of a 56-year-old male². The cells can metastasize but have poor differentiation abilities. These cells are known to have an epithelial morphology and are adherent in cell culture flasks. The cells can be frozen and regrown in culture. Additionally, PANC-1 cells tend to clump, a feature that can be avoided with trypsinization³.</p> <p>PANC-1 cells have been used to study the role of keratin reorganization during the migration of cancer cells, along with calcium-mediated actin reset in response to physiological changes. These cells can also be used for 3D cell culture, assay development, cancer research and high-throughput screening applications.</p> <p>Vial contains approximately 500,000 cells. Shipped with dry ice.</p> <p><small>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.</small></p>



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

Media Formulation Instructions (for MR1012 Human PANC-1 Expansion Media <u>not included</u>)	
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.

FOR RESEARCH APPLICATIONS ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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

Publications and Product Citations
<p>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.</p>

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.

² Lieber, M. et al. (15 May 1975). International Journal of Cancer. 15 (5): 741-747.

³ Thompson, Evonne (22 July 2009). Myers Laboratory. Retrieved 27 June 2018.