Product sheet

FAMPAC Cells | 300309

General information

Description	The Fampac cell line was established from the primary pancreatic adenocarcinoma of an adult female who had a familial predisposition to pancreatic cancer. These cells are epithelial in nature and have been utilized extensively in research focused on the biological behavior of pancreatic cancer, including studies on tumor progression, metastasis, and therapeutic response. The Fampac cell line is known for its aggressive tumor-forming capability in xenograft models, which makes it valuable for in vivo studies related to drug efficacy and cancer cell biology. In vitro, Fampac cells exhibit characteristics typical of pancreatic adenocarcinoma, including resistance to apoptosis and the ability to proliferate under chemically defined conditions. This resistance to programmed cell death is a critical feature for studies looking to explore new chemotherapeutic agents and their potential to induce cancer cell death. Additionally, Fampac cells have been used to study the molecular mechanisms of pancreatic cancer pathogenesis, offering insights into genetic mutations, signaling pathways involved in cancer proliferation, and interactions with the tumor microenvironment.
Organism	Human
Tissue	Pancreas
Disease	Adenocarcinoma
Synonyms	FamPAC, Fampac, PA-CLS-13, PA-CLS 13

Characteristics

Age	43 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Adherent

Regulatory Data

Citation	FAMPAC (Cytion catalog number 300309)
Biosafety level	1

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NCBI_TaxID	9606
CellosaurusAccession	CVCL_5749

Biomolecular Data

Protein expression	P53, point mutation (CCG (Arg) to CAC (His)
Antigen expression	FAMPAC cells carry a homozygous Kras mutation in codon12: GGT(Gly) >GTT(Val)
Tumorigenic	Yes, in nude mice, adenocarcinoma
Karyotype	45-48, x,+3,-5,+der(5),+der(5),+der(5)add(p14),-7,+10,+2der(10)add(p15)add(q26),der(12)add(p13),der(12)add(p11),-13,-13,+der(13)add(p11),-14,der?(14),-15,i(15q),der(16)(q+),-19,-20,-21,-22,+3-5mar

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	Accutase
Doubling time	24 to 48 hours
Subculturing	Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with Accutase, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.
Seeding density	1 x 10^4 cells/cm^2 will yield in a confluent layer in about 2to3 days
Fluid renewal	2 to 3 times per week

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.
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 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. 7. 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. 8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.
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

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.