

Pancreatic Stellate Cells (CAFs)

Product Information

Product Name	Human Pancreatic Stellate Cells (Cancer-Associated Fibroblasts, CAFs)
Catalog Number	NEOCA76
Cell Type	Cancer-Associated Fibroblasts (CAFs)
Tissue Source	Human Pancreatic Tumor Tissue
Species	Human
Passage Number	Passage 1
Cell Number	1,000,000 cells/vial
Growth Properties	Adherent
Morphology	Spindle-shaped fibroblast-like morphology
Biosafety Level	BSL-2
Storage Condition	Liquid Nitrogen Vapor Phase
Intended Use	Research Use Only (RUO). Not for human or clinical applications.

Product Description

Human Pancreatic Stellate Cancer-Associated Fibroblasts (CAFs) are isolated from pancreatic tumor tissue and expanded under optimized culture conditions. These cells exhibit activated fibroblast morphology and express characteristic stromal and extracellular matrix markers associated with pancreatic tumor microenvironment remodeling, fibrosis, angiogenesis, and tumor progression.

Pancreatic CAFs play a critical role in pancreatic ductal adenocarcinoma (PDAC) progression by regulating extracellular matrix deposition, immune modulation, cytokine secretion, and cancer cell invasion.

These cells are ideal for:

- Tumor microenvironment studies
- Fibrosis research
- Drug screening
- Immuno-oncology applications
- CAF signaling pathway analysis

- Stromal-tumor interaction studies
- 3D spheroid and organoid co-culture systems

Expression Markers

Positive Expression Markers

Marker	Expression
α -SMA (ACTA2)	Positive
FAP	Positive
Vimentin	Positive
Fibronectin	Positive
Collagen I	Positive
Collagen III	Positive
PDGFR- β	Positive
FSP-1 (S100A4)	Positive
Tenascin-C	Positive
CXCL12	Positive
TGF- β	Positive
IL-6	Positive
Desmin	Variable Positive
GFAP	Variable Positive

Negative Expression Markers

Marker	Expression
CD31	Negative
CD45	Negative
Cytokeratin 18	Negative
EpCAM	Negative
VE-Cadherin	Negative



Quality Control

- Sterility tested
- Mycoplasma tested
- Morphology verified
- Marker expression validated by immunocytochemistry and/or flow cytometry
- Viability $\geq 85\%$ post-thaw

Recommended Culture Conditions

Parameter	Recommendation
Culture Medium	CAF/Fibroblast Growth Medium
Incubation	37°C, 5% CO ₂
Vessel Coating	Standard Tissue Culture Treated Flask
Medium Renewal	Every 2–3 days
Recommended Split Ratio 1:2 to 1:4	

Cryopreservation

Cells are cryopreserved in optimized freezing medium containing DMSO and serum substitute.

Thawing Procedure

1. Rapidly thaw vial in 37°C water bath.
2. Transfer cells into pre-warmed complete medium.
3. Centrifuge and resuspend cells.
4. Seed into appropriate culture vessel.
5. Replace medium after 24 hours.

Applications

- Pancreatic cancer research
- Stromal biology studies
- CAF activation studies
- Fibrosis modeling
- Drug resistance analysis



- Cytokine profiling
- Extracellular matrix remodeling studies
- Co-culture with pancreatic tumor organoids

Storage

Store in vapor phase liquid nitrogen immediately upon arrival.

Avoid repeated freeze-thaw cycles.

Safety Statement

This product is intended for research use only and is not approved for human or veterinary use.