

Human Primary Lung Epithelial Cells - Cystic Fibrosis

Human primary cells expressing a cystic fibrosis phenotype with application in cell-based screening and life science research

The primary cell isolate was prepared from human tissue obtained with full ethical permission. Cells were isolated by enzymatic digestion and cultured in optimal conditions for epithelial growth. Cells were banked and cryopreserved under liquid nitrogen after no more than 3 population doublings. The cell population was analysed by fluorescence-activated cell sorting (FACS) and immunocytochemistry.

DONOR TISSUE FEATURES

- Male donor, 39 years, additional donor history available on request
- Airway bronchi (Cystic Fibrosis)

CELL CHARACTERISTICS

Batch number:	17-2403
Vial content:	0.5x10 ⁶ cells
Appearance:	Flat cells with central nuclei
Seeding density:	5000-6000 cells/cm ²
Culture medium:	BEGM (Lonza, recommended)
Recovery from frozen:	89%
Population doubling:	1-2 days
Mycoplasma test:	Negative (by luminescence-based mycoplasma assay)
Virus tests:	Negative for HIV1, HIV2, HBV, HCV (by serology screen), negative for HAV, HTLV1 and HTLV2 (by real time PCR)
Other tests:	Negative for yeast, bacteria, fungus
Microscopy:	Positive for CFTR (by immunofluorescent staining)



Cell morphology. Cells in culture were photographed using a phase contrast microscope. (Bar 50µm)

FLOW CYTOMETRY CELL ANALYSIS

Cell Marker	Target Description	Population Positive
Epi-CAM (CD326)	Epithelial marker	73.1%*
E-Cadherin	Epithelial marker	59.2%*

*Percentage of cells with fluorescence greater than the isotype control background

USES AND RESTRICTIONS

- Store at -150°C. Once thawed do not re-freeze
- For research use ONLY — not suitable for *in vitro* diagnostic use or human or animal treatment
- Potential biohazard — handle with care

Leaders in Cell Culture