

# Human Primary Lung Epithelial Cells – Chronic Obstructive Pulmonary Disease

A primary cell isolate expressing a chronic obstructive pulmonary disease (COPD) phenotype with application in cell-based screening and life science research

## PRODUCT OVERVIEW

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 flow cytometry.

## TISSUE FEATURES

- Female donor, age 44 years
- Airway, bronchi - COPD

## CELL CHARACTERISTICS

Batch number:	11-0608
Mycoplasma test:	Negative (by ELISA-based assay)
Virus tests:	HIV1, HIV2, HBV, HCV (RT-PCR screening)
Other tests:	Fungus, yeast (negative)
Passage:	<P5
Doubling time:	2-3 days
Appearance:	Flat cells with central nuclei
Culture medium:	BEGM (Lonza)
Surface Coating:	Human type IV collagen
Seeding density:	5000-6000 cells cm <sup>2</sup>
Recovery from frozen:	86.6% viability

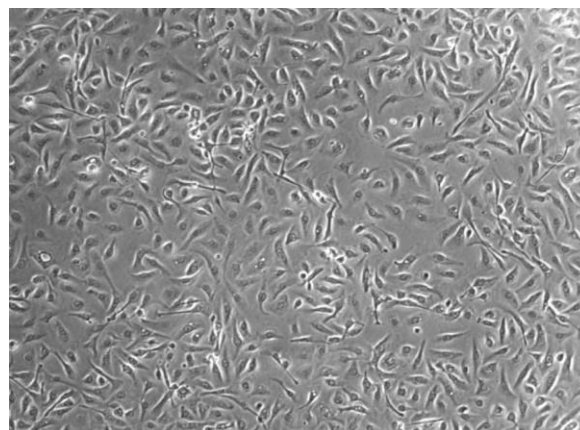


 Figure 1

Cell morphology. Cells in culture were photographed using a phase contrast microscope. (Magnification: x10)

## FLOW CYTOMETRY CELL ANALYSIS

Cell Marker	Target Description	Population (Positive) <sup>a</sup>
Epi-CAM (CD326)	Epithelial marker	54%
E-Cadherin	Epithelial marker	80.14%

<sup>a</sup> Percentage of cells with fluorescence greater than the isotype control background

## USES AND RESTRICTIONS

- Further expansion potential for up to 3 population doublings
- 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