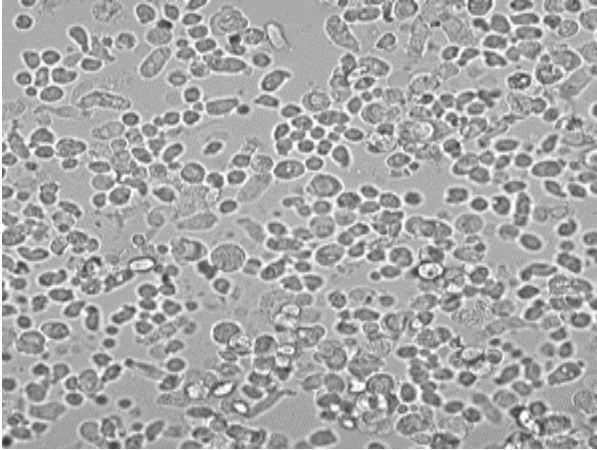


## Proliferating Normal Human Bronchial Epithelial Cells-P1 (NhBE-P1)



### Proliferating Normal Human Bronchial Epithelial

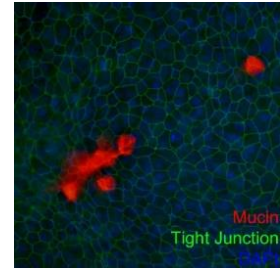
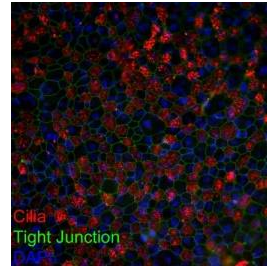
**Cells- P1** are isolated, initially as NhBE-P0, from the bronchus at the bifurcation point to the fourth generation of bronchi. The original cell composition consisted of a mix of differentiated ciliated, non-ciliated, goblet, and basal cells. After culturing the mixed NhBE-P0 in BEGM, CRC or Dual Smad culture conditions, the result is a homogenous population of basal cells, or NhBE-P1.

### QC Testing

NhBE-P1 cells have been characterized by morphological assessment by light microscopy. The NhBE-P1 homogenous basal cell population was then further QC tested after differentiating the NhBE-P1 cells (using Novabiosis ALI-DM media, Cat# 2001) into ciliated, non-ciliated and goblet cells. These differentiated cells were characterized and Air/Liquid Interface culture (ALI) validated by immunofluorescence using protein markers for Cilia (acetylated tubulin), mucin (MUC5AC), tight junctions (Zonula Occludens-1), and basal cells (cytokeratin-5). The NhBE-P1 cells are guaranteed to have minimum population doublings of at least 20 (from P1 to P3) following the instructions and conditions provided by Novabiosis. Attachment from P1 thaw, typically 75% of initial count.

Average population doubling time,  $40 \pm 5$  hours (P1 to P2 cells). Transepithelial resistance at 21 days ALI, ranges from 500 to 2000  $\Omega$ . Percent ciliated cells at 21 days ALI, >50% at

P1. All the lot-specific information will be reported on the Certificate of Analysis (CoA).



### Advantages

- **Convenience:** P1 cells can be grown with any method amenable to expansion of primary airway epithelia including BEGM, CRC or Dual Smad conditions.
- **High purity and low passage**
- **Access to high quality non-transplantable organs**
- **More extensive donor information**

### Applications

- cell signaling
- cell permeability
- epithelial function
- tissue repair
- cytokine and growth factor production
- apoptosis
- pro-inflammatory signaling
- mucin secretion
- gene expression
- cell Based Assays
- among many others

**Donor information including:** cause of death, age, gender, race, BMI, diabetic status, smoking history, alcohol use, substance use, HLA typing, serology and culture results, and co-morbidities, if any, is also included on the CoA.

### **Serology results include (positive or negative):**

CMV, EBV, Toxo, HBV, HCV, HIV-1, HIV-2. Additional serology results may be provided upon request.

### **Culture results include (positive or negative):**

Gram +, Gram -, Mycoplasma, Fungi.



## **Catalog Information and Related Products**

Normal Human Bronchial Epithelial Cells-P1 (NhBE -P1)

- Cat. # 1012

Novabiosis Air Liquid Interface Differentiation Media

(ALI-DM), 250mL

- Cat. # 2001

## **Product Storage and Warranty**

**CULTURES HAVE A LIMITED LIFESPAN *IN VITRO*.**

Upon receipt, immediately store cryovial(s) in vapor phase liquid nitrogen.

Cryopreserved human lung cells are viable for at least 2 years when stored under these conditions.

Novabiosis guarantees the performance of its cells only if following Novabiosis-specific instructions exclusively and the recommended products and protocols are used and followed.

The performance of the cells is not guaranteed if any modifications are made.

***THESE PRODUCTS ARE FOR RESEARCH USE ONLY.***