

Human Precision-Cut Lung Slices (PCLS)



The AnaBios Advantage

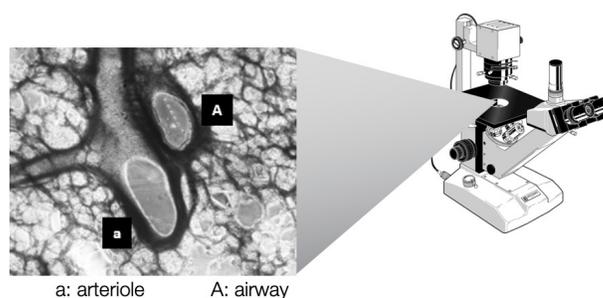
- High-quality human lung tissue
- Ethically-consented donor samples
- Functional, translational tissue samples

HUMAN LUNG TISSUE FOR TRANSLATIONAL RESEARCH

AnaBios is one of the only contract research organization in the United States with direct access to a vast network of human tissue and intact, functional human lungs from consented donors. We have more than 10 years of experience procuring ethically-sourced human tissue samples processed utilizing proprietary methods to maximize success in experimentation involving proteomics, metabolomics and gene expression analysis. These specialized tissue samples are ideally suited for supporting scientific research and drug discovery in several therapeutic areas.

PRECISION-CUT LUNG SLICES FOR EX-VIVO ASSAYS

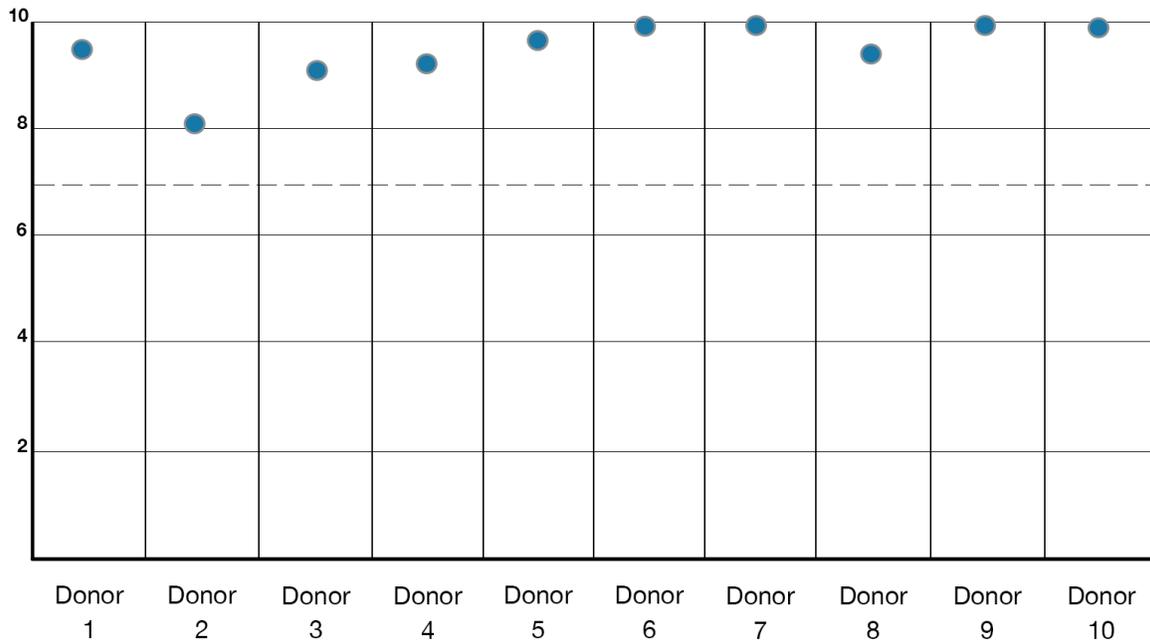
Pulmonary assays utilizing precision-cut lung slices have the advantage of maintaining the intact tissue structure. In the image below, Brightfield microscopy is used to measure arteriole contraction and relaxation.



a: arteriole

A: airway

LUNG TISSUE RIN SCORES



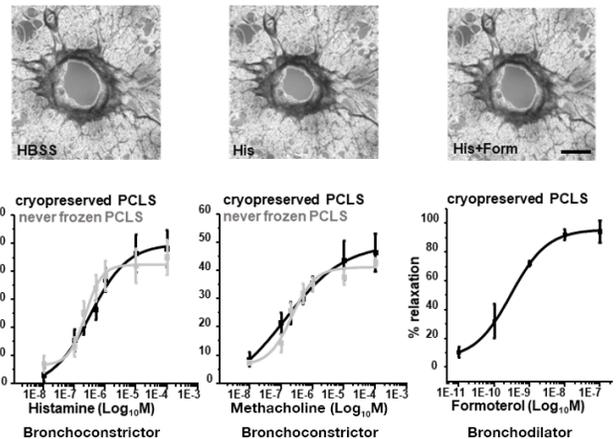
The RNA quality of human lung recovered and preserved by AnaBios was assessed using RNA integrity numbers (RIN) determined by an Agilent Bioanalyzer. RIN scores for each donor sample is plotted on the scatter plot above. All RIN scores are greater than 7, which indicates that RNA remains intact and not degraded during tissue recovery.

RECOVERY PROCESS

AnaBios recovers human tissue samples exclusively from a US-based network comprised of a large number of hospitals. All cases are ethically consented and comply with regulations governing the procurement and use of human tissue for research. In addition, all tissue samples are recovered using rigorous protocols which utilize reagents that ensure tissue viability and consistency.

PREPARATION & STORAGE OF PCLS

AnaBios offers cryopreserved precision-cut lung slices (PCLS) that can be thawed for long-term culture. AnaBios procures human lung organs from consented donors, which are then processed utilizing a vibratome. Afterwards, the slices are stored at -80°C . The slices are highly viable and maintain function after being thawed and placed in culture.



Cryopreserved Precision-Cut Lung Slices Functions Similarly to Fresh PCLS

In the image above, fresh and cryopreserved precision-cut lung slices show identical responses to three reference drugs: histamine, methacholine and formoterol.