



3D Cystogenesis Models of Autosomal Dominant Polycystic Kidney Disease

Price: \$1500/plate without image analysis. \$2000/plate with image analysis

Contact: Dr. Erik M. Schwiebert, Ph.D.

2017

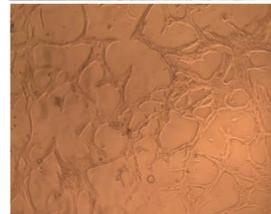
3D Biogel Culture Format

DBM is well versed in the culture of human epithelial cells (normal and diseased) in an optimized 3D Biogel culture. 3D biogel culture provides inherent advantages and higher physiological relevancy over traditional 2D culture.

DBM has optimized this system to work with primary normal and diseased renal tissue. In the case of diseased tissue, DBM offers Autosomal Dominant Polycystic Kidney Diseased (ADPKD) human primary cells from an array of donors with mutations in either PKD1 or PKD2. In 3D culture, these cells form fluid filled cysts that are dynamic and responsive to drug treatment.



Primary huADPKD Cyst-derived Cells (grown in Biogel)

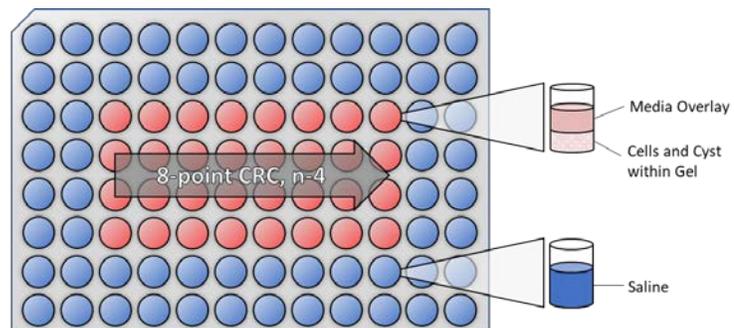


Primary Normal Human Mixed Renal Medullary Cells (grown in Biogel)

Several endpoints can be measured. The number of cysts per well can be tabulated. We have also observed morphological changes, where cysts lose their lumen, become darker and turn into spheroid shapes. This conversion can be tracked as well. Furthermore, individual cyst size can be measured by daily imaging and tracked over time to observe response to drug treatment. Finally, viability can be measured with 3D Cell Titer Glo at the conclusion of the study. Additional endpoints are always being added and custom readouts can be created if desired by the client. Please inquire if your preferred endpoint isn't listed.

The formation of 3D fluid filled cysts and renal tubules or ducts in our hands requires only proprietary DBM RenalCyte media – no additives or stimuli, like growth factors or forskolin, are required to drive cyst or tubule formation.

Thank you for your interest in DBM's Online Store offerings – our belief is that the use of physiologically-relevant human cells from human tissue is most pertinent to pharmaceutical discovery and development – DBM does not compromise on that principle.



Edge wells are filled with saline and used to mitigate edge effects. Each plate is run with 1 therapeutic asset in an 8-point concentration response curve (CRC), n=4.