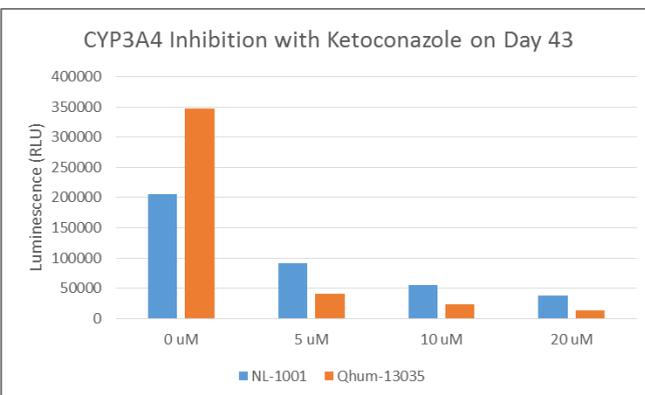
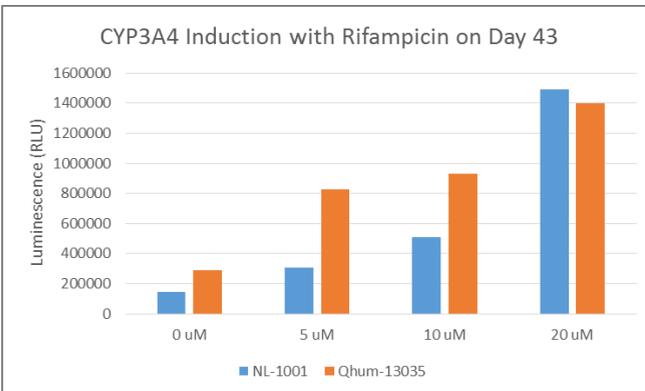
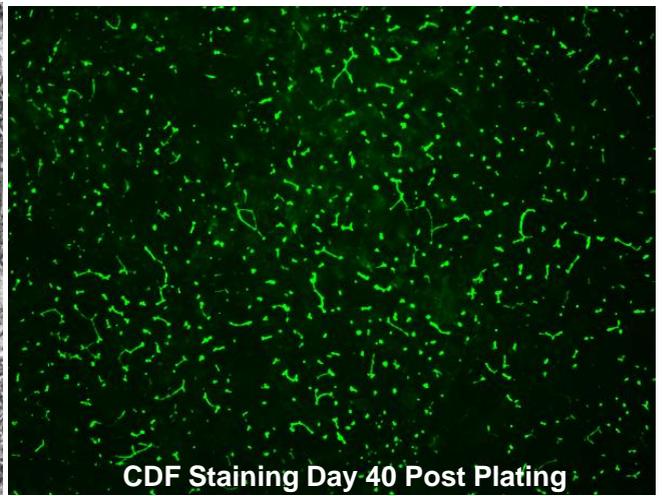
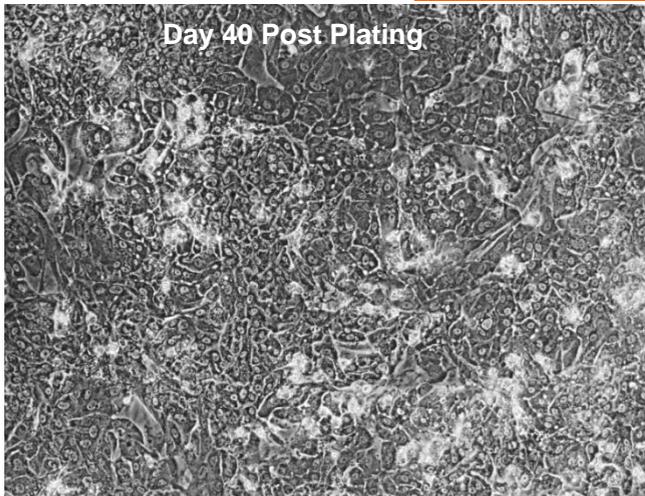


Human / Human Hepatic Co-Culture Model

Human Hepatocytes with Human Liver Stromal Cells

For all Long-Term Culture Needs



Human / Human Hepatic Model Highlights

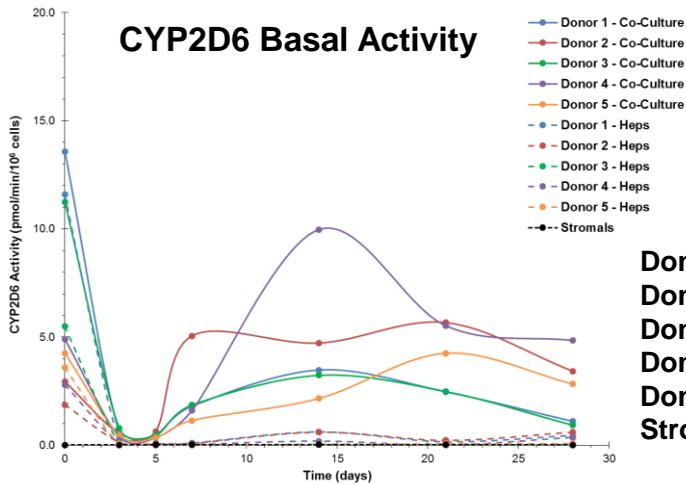
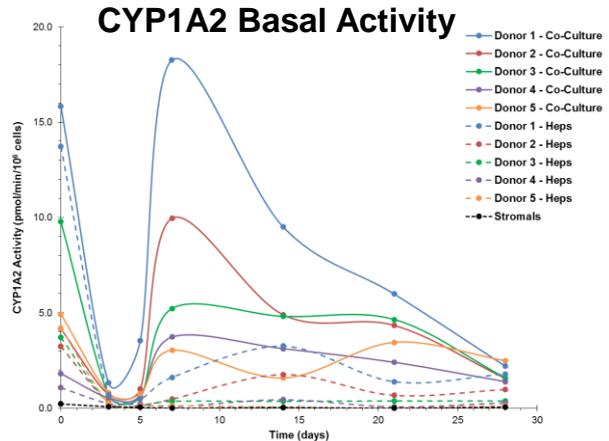
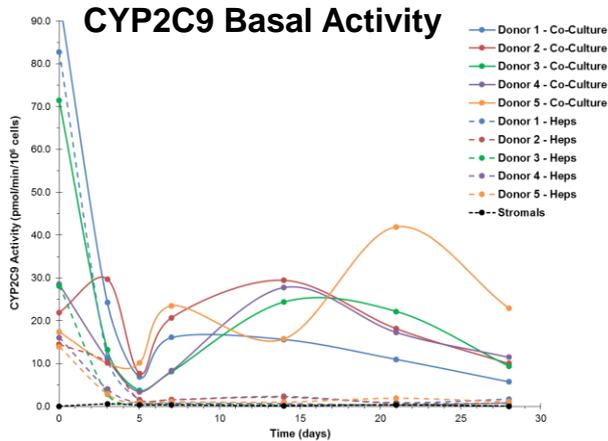
- Human hepatocytes and human liver stromal cells are plated together on Collagen I
- Stromal Cells provide hepatocytes with
 - Soluble Factors
 - Extracellular matrix
 - Cell-cell interactions
- Hepatocytes remain functional in culture beyond 40 days
- Hepatocytes in co-culture don't undergo epithelial to mesenchymal transition and maintain polarity
- Hepatocytes in co-culture have relevant physiological functions
- Assays can be repeated multiple times on the same cells

Promega CYP3A4-IPA assay was carried out
Following Induction and Inhibition

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Cytochrome P450 Metabolism

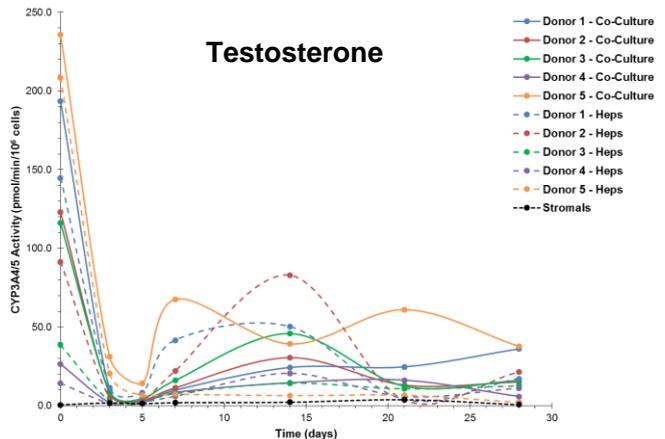
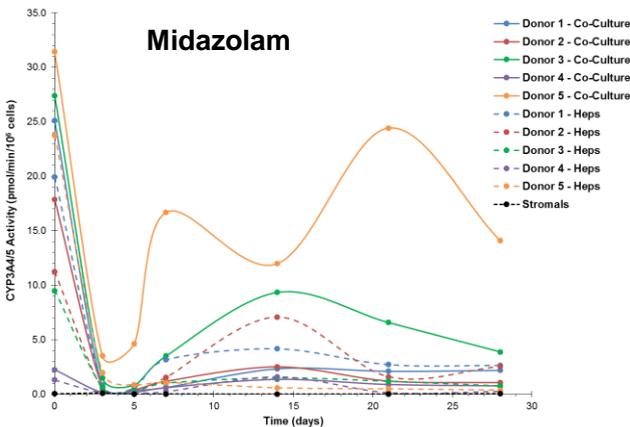
Co-Culture vs. Hepatocytes Alone in 96-Well Format



Donor 1 = QHum13035
 Donor 2 = QHuf15028
 Donor 3 = LHum16081
 Donor 4 = LHuf15908B
 Donor 5 = NL-1001
 Stromal = LMSC-1006

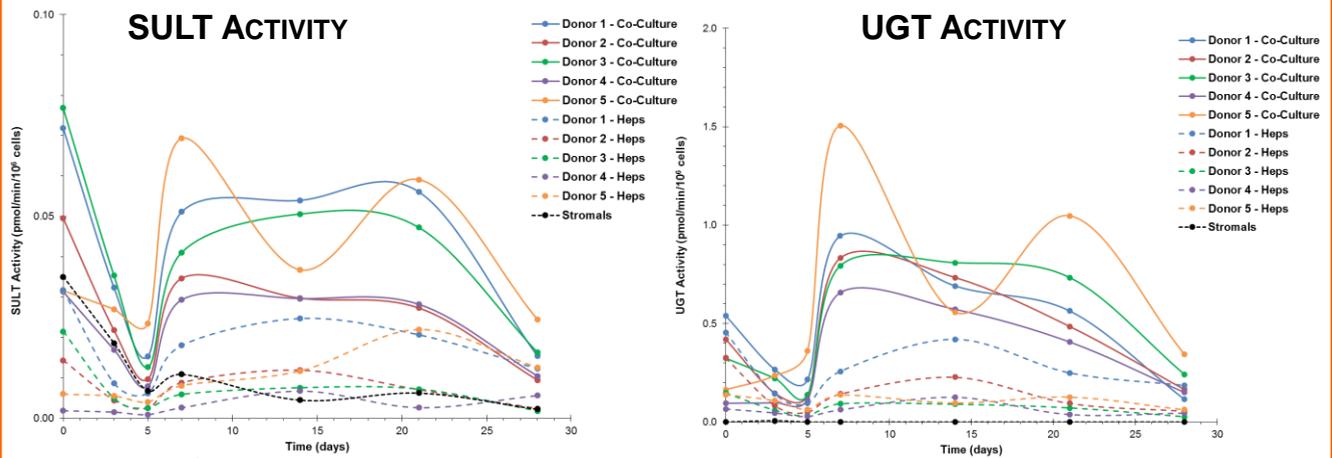


CYP3A4/5 Basal Activity



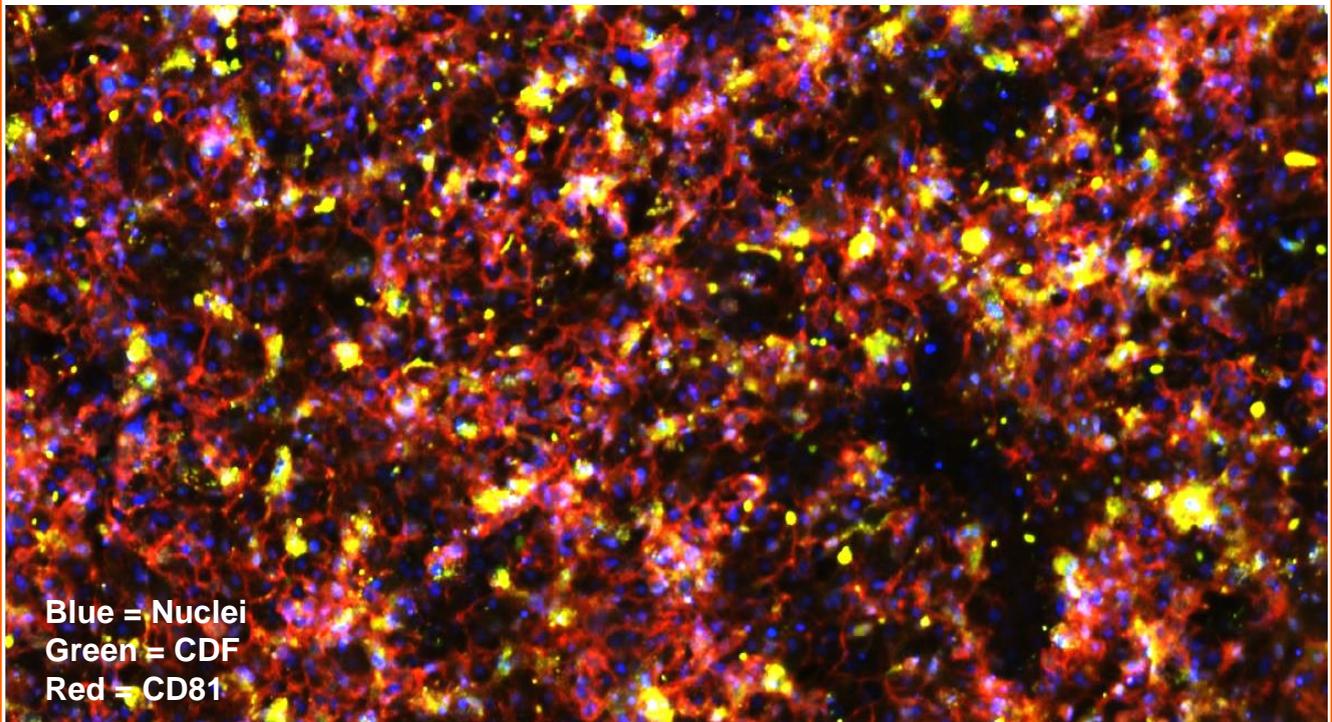
Phase II Metabolism

Co-Culture vs. Hepatocytes Alone in 96-Well Format



Donor 1 = QHum13035
Donor 2 = QHuf15028
Donor 3 = LHum16081
Donor 4 = LHuf15908B
Donor 5 = NL-1001
Stromal = LMSC-1006

Bile Canaliculi Formation In Co-Culture



CELIGO IMAGING OF QHUM-13035 ON DAY 25 POST PLATING



Hepatic Model

PhoenixSongs Biologicals

Phone: 203-433-4329

Fax: 203-208-0664

Toll Free: 866-702-0260

PhoenixSongs has developed a new hepatic co-culture model that includes human hepatocytes, human liver stromal cells and hepatocyte media for recovery of cryopreserved hepatocytes, media for thawing the stromal cells and plating of both hepatocytes and stromal cells and media for the maintenance of fresh and cryopreserved hepatocytes that when cultured together in co-culture with liver stromal cells can maintain hepatocyte function beyond 30 days in culture.

Human / Human Hepatic Co-Culture Model

Catalog #	Description	Unit Size	Unit Cost
Human Hepatocytes in Co-Culture with Human Liver Stromal Cells			
Human hepatocytes pre-plated together with human liver stromal cells on Collagen I coated 96-well plates – Promotional Item for New Release			
PHHCCP	Primary Human Hepatic Co-Culture Plates	Ea.	\$750.00
Liver Stromal Cells – Growth Arrested			
Liver stromal cells isolated from human livers donated through the Federal Organ Procurement Organization are growth arrested and ready to be co-cultured with any donor lot of hepatocytes, hepatoblasts or stem cells			
33002-018GA	Donor Lot LMSC-18	5M Cells	\$550.00
33002-1006GA	Donor Lot LMSC-1006	5M Cells	\$550.00
33002-1007GA	Donor Lot LMSC-1007	5M Cells	\$550.00
33002-1009GA	Donor Lot LMSC-1009	5M Cells	\$550.00
33002-1012GA	Donor Lot LMSC-1012	5M Cells	\$550.00
Human / Human Hepatic Model Cryopreserved Kit			
Includes one vial each of human hepatocytes and growth arrested human liver stromal cells. Media sold separately			
PHHCCK	Human / Human Hepatic Model Kit	Ea.	\$1500.00

Hepatocyte Media

Catalog #	Description	Unit Size	Unit Cost
CRM050	Cryopreserved Hepatocyte Recovery Media Complete serum-containing media for the recovery of cryopreserved hepatocytes. One tube should be used to recover 1-2 vials of hepatocytes upon thawing.	50ml	\$75.00
HPM250	Hepatocyte Plating Media Complete serum-containing media for plating cryopreserved human hepatocytes and human liver stromal cells. Includes basal medium, frozen supplement containing serum, glutamine and all necessary factors for attachment of hepatocytes and liver stromal cells.	250ml	\$100.00
HCM500	Hepatocyte Culture Media Complete serum-free media for maintenance of freshly isolated or cryopreserved human hepatocytes. Includes basal medium with serum-free supplement containing glutamine and all necessary factors.	500ml	\$150.00

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