

Product Description

The liver is a vital organ in mammals, and hepatocytes, the major cell type in liver, play critical roles in protein synthesis, detoxification of various metabolites, transformation of carbohydrates, and the production of biochemical necessary for digestion. Primary hepatocyte culture is an important model for in vitro studies in drug development, including hepatotoxicity, drug transport, hepatitis virus infection, hepatic drug metabolism and hepatobiliary excretion

iXCells Biotechnologies provides high quality human primary hepatocytes isolated from whole liver of human organ donors and cryopreserved on the day of isolation with ≥ 5 million cells in each vial. These cryoplateable primary human hepatocytes (CPHH) reach and maintain a confluent monolayer (>85% confluency) for at least 7 days, express general hepatocyte marker albumin, and show accumulation of lipid droplets. Each lot of CPHH is QC tested & validated for key Cytochromes P450 (CYPs) enzyme activity induction. They are negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast, and fungi. CPHH cannot be subcultured or passaged

Product Details

Tissue	Human Liver
Package Size	5million cells/vial
Passage Number	P0 - plateable
Shipped	Cryopreserved
Storage	Liquid nitrogen
Growth Properties	Adherent
Media	iXCells™ CPHH Thawing and Plating Kit (Cat# MD-0111) iXCells™ CPHH Attachment and Matrix Kit (Cat# MD-0112) Cryoplateable Hepatocyte Maintenance Medium (CHMM) (Cat# MD-0113)

India Contact:

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Cryoplateable Primary Human Hepatocytes (CPHH)

Catalog Number	10HU-233	Cell Number	5 million cells/vial
Species	<i>Homo sapiens</i>	Lot Number	202715

Donor Information:

Gender	Male
Age	40
Ethnicity/Race:	Caucasian
BMI	36.6
Cause of death	Anoxia
Cigarette	Yes, >20 pack years
Alcohol	Yes, 2+ drinks/daily
Medical history	Hypertension, 0-5 years
Liver biopsy histology	Available
HLA typing	Available

QA/QC Tests:

Tests	Results
1. Number of total cells	5.95 million
2. Number of viable cells	≥.5 million
3. Viability	90.2%
4. Bacteria, Yeast, Mycoplasma Other Fungi	Negative
5. Pathogen screen (HIV, HBV, HCV, CMV, Syphilis)	Negative
6. Culture duration	7 days
7. Confluence	>90 at D5
8. P450 CYP inducibility	Inducible

These cells were obtained through an IRB approved donor program.

Recommended Storage Condition: Upon arrival, please use product immediately or keep in liquid nitrogen storage. Products stored in liquid nitrogen should maintain above specifications for up to six months from the date of shipment.

Cells are for *in vitro* research purposes only and are not intended for use in humans.

WARNING: in accordance with OSHA and CDC guidelines, all specimens should be handled as though they contain agents infectious to humans and follow appropriate safety control procedures to ensure the safety of using these products.

Approved By:

A handwritten signature in black ink, appearing to be 'M. J. ...', is written on the page.

Image Analysis Report

Product Name: Cryoplateable Primary Human Hepatocytes (CPHH)

Catalog Number: 10HU-233

Lot Number: 202715

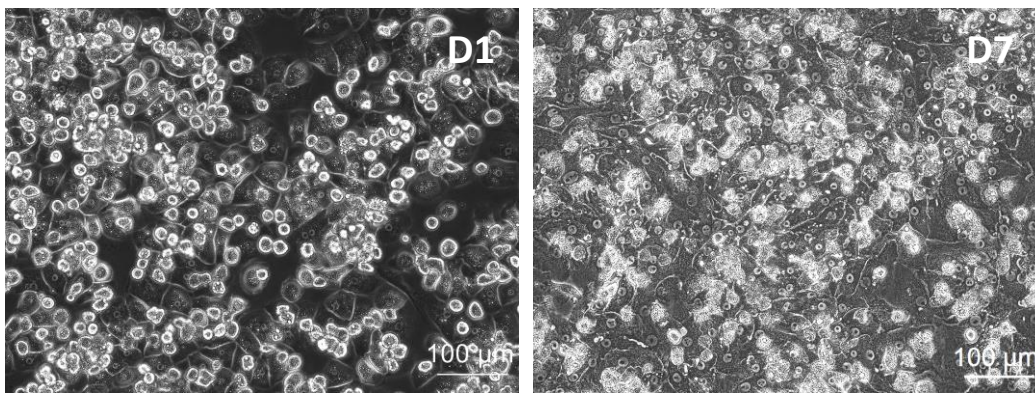


Figure 1. Phase contrast image of CPHH. CPHH reached and maintained monolayer with >90% confluency over 7 days.

Immunostaining

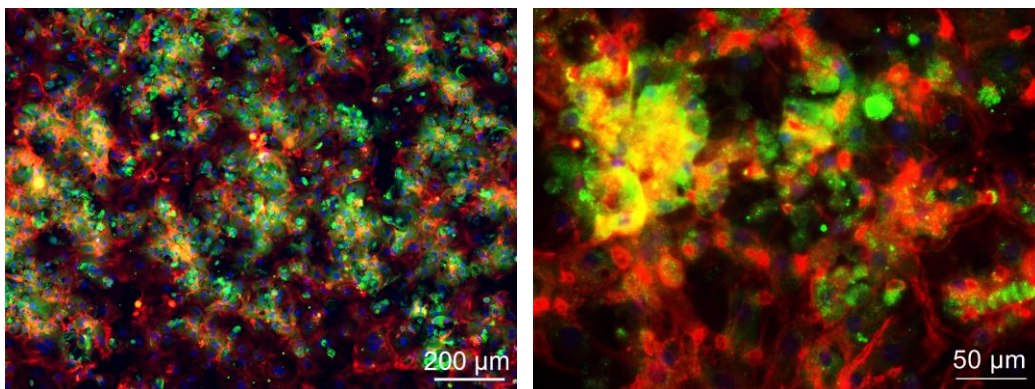


Figure 2. Immunostaining of cultured CPHH. Hepatocytes were cultured and layered in 2D sandwich model for 5 days. Albumin recognized by anti-human albumin antibody (green), and cytoskeleton marker F actin revealed by Alexa Fluor 555 Phalloidin (red), with cell nuclei counterstained by DAPI (blue).

P450CYP Activity Report

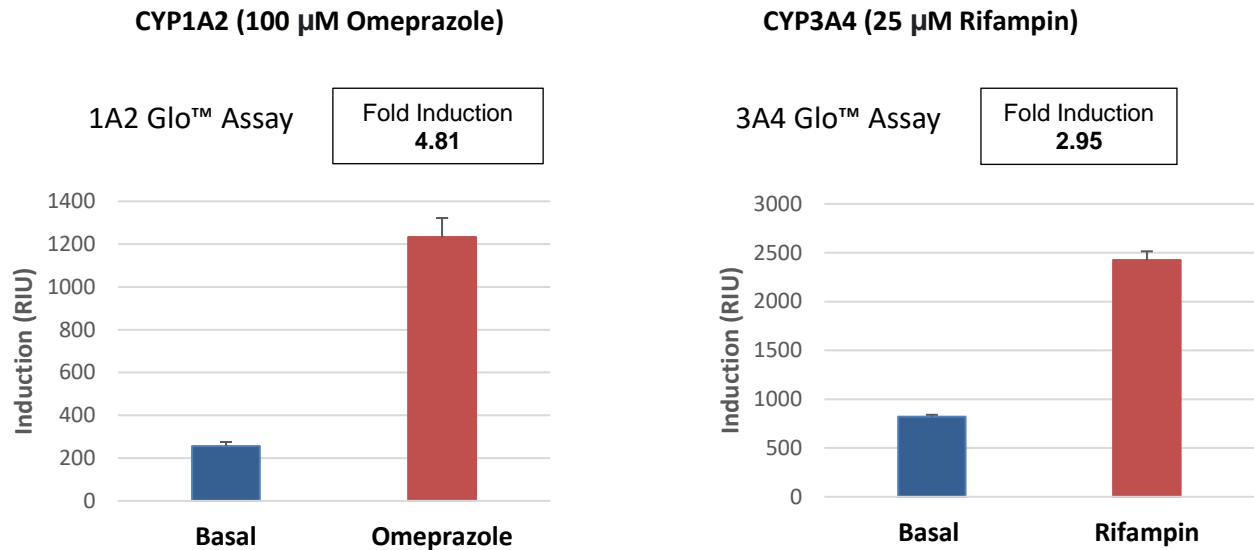


Figure 3. P450 CYP activities induced by Omeprazole or Rifampin. CPHH were plated in a 12-well culture dish (750,000 cells/well) in 2D sandwich model and incubated with appropriate inducers for 48 hours. Supernatant from induced and uninduced cells were analyzed using P450-Glo™ Assay (Promega, Cat. No. V8421; V8911). The fold changes of the drug induced P450 CYP enzyme activity over the basal level were calculated.

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