

**HHCP-I Human Hepatocytes Cryopreserved Plateable for induction assays
Cell Specification – Certificate of Analysis (CoA)**

Lot cPHH020725491

Batch Release: March 30, 2026

Donor data

Species: Human

Gender: female

Age: 80 years

Smoker: ex-smoker

Diagnosis: Intrahepatic cholangiocarcinoma and mixed type intraductal papillary mucinous neoplasm

Medical History: Hypothyroidism, rheumatoid arthritis, GORD (Gastro-oesophageal reflux disease)

Therapy: Hemihepatectomy left

Medication: Methotrexate, Hydrochloroquine, Folic acid, Levothyroxine, Lansoprazole, Simvastatin, Adcal, Magnesium, Vitamin C
Serology: negative for HBV, HCV, HIV 1/2

Cryopreservation and Thawing

Cryopreservation:

Date: July 02, 2025
Amount per vial: 10.0 x 10⁶ cells

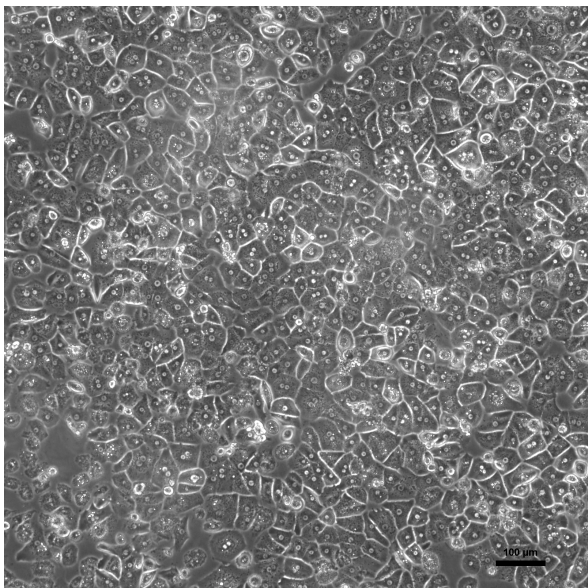
Thawing: n=1

Post-thaw viability: 96.3 %
Post-thaw yield per vial: 9.2 x 10⁶ cells
Recovery: 92 %

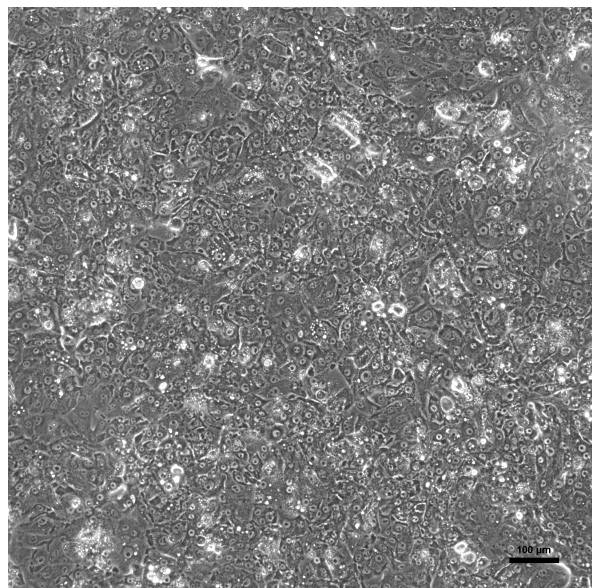
Only one spin required. No washing step.

2D culture

Phase contrast on day 1 after thawing
(24well plate)



Phase contrast on day 4 after thawing
(24well plate)



Recommended seeding density on collagen-coated plates:
24well plate – 300,000 cells/well // 96well plate – 80,000 cells/well,
Culture in Human Hepatocyte Maintenance Medium (HHMM).

Note: Gently shake the plate (N/S-E/W) every 30 minutes for 2 hours after plating (only 24well plate and bigger wells). This step has a positive effect on the uniform plating.

CYP P450 activity in 2D culture after thawing:	pmol/(mg × min)	X-fold induction
Ethoxyresorufin-O-deethylation:	24well: 13.3 ± 0.2	4.3
Induction with 25 µM β-Naphthoflavone for 3 d	96well: 11.1 ± 1.0	3.2

Suspension culture

Viability test on orbital shaker (Eppendorf Thermomixer C, 1000 rpm at 37 °C with 0.5 x 10⁶ cells in 0.5 mL HPM-Cryo):

Time (h)	0	1	2	3	4	5
Viability (%)	96.3	91.1	92.5	80.5	94.2	93.1

Note: Yield, viability, recovery and activity assays were performed at PRIMACYT using PRIMACYT's manual for thawing, plating and culture of primary cryopreserved hepatocytes.

Note for thawing process: Only one spin at 100 x g, 10 min., 20 °C is required. No washing step needed.

Store at -150 °C or in the vapour phase of LN₂

This product should be considered as potential biohazard. Only intended for *in vitro* use.

Issued by: A. Ullrich

Verified by: J. Schuldts