

RHCP-I-3D Rat Hepatocytes Cryopreserved Plateable for Induction assays and for 3D culture

Cell Specification – Certificate of Analysis (CoA)

Lot RH210728

Batch Release: August 15, 2022

Donor data

Species: *Rattus norvegicus* forma domestica
Strain: Wistar:Han IGS rat // Crl:Wi(Han)

Gender: female
Age: 5 months

Cryopreservation and Thawing

Cryopreservation:

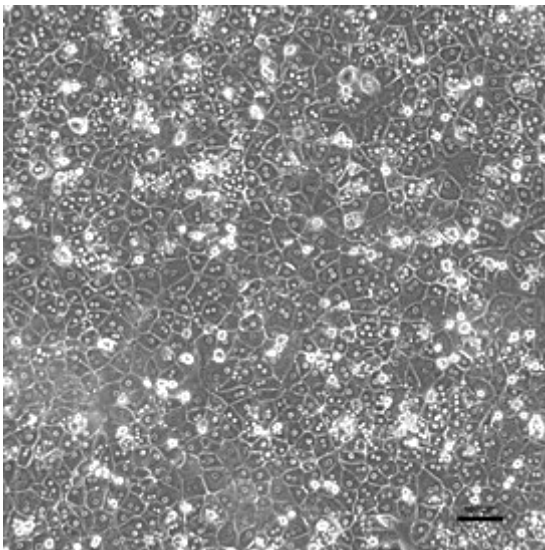
Date: July 28, 2021
Amount per vial: 9.79×10^6 cells

Thawing: n=1

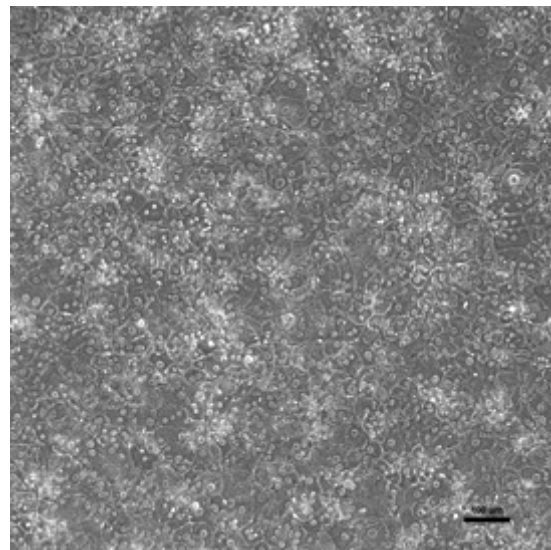
Post-thaw viability: 79.5 %
Post-thaw yield per vial: 6.0×10^6 cells
Recovery: 61 %

2D culture

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



Phase contrast on day 3 after thawing
(24well plate)



Recommended seeding density on collagen-coated plates:

24well plate – 200,000 cells/well // 96well plate – 50,000 cells/well

Culture in Human Hepatocyte Maintenance Medium (HHMM)

CYP P450 activity in 2D culture after thawing:

pmol/(mg × min)

X-fold induction

Ethoxyresorufin-O-deethylation:

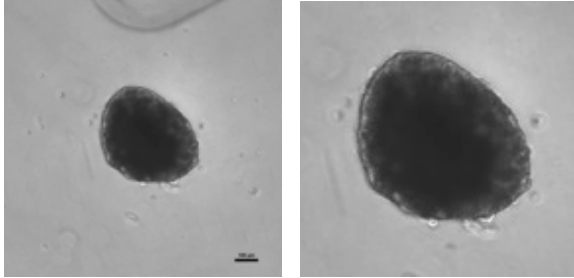
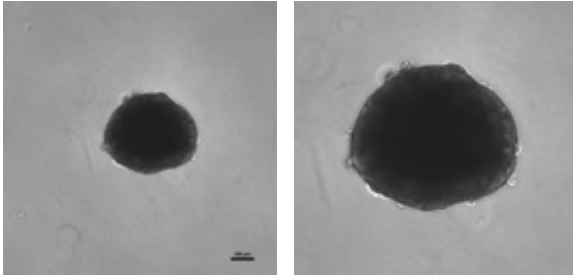
24well: 40.6 ± 2.2

17.7

Induction with 25 μ M β -Naphthoflavone

96well: 118.1 ± 23.1

36.0

3D culture		
Cells seeded in 96well ULA round bottom plates (FaCellitate), 2,500 cells/well		
day 6		day 8
 <p>scale bar 100 µm</p>		 <p>scale bar 100 µm</p>
CYP P450 activity in 3D culture after thawing: Ethoxyresorufin-O-deethylation: Induction with 3 µM β-Naphthoflavone	pmol/(mg × min) 96well: 10.6 ± 1.9	X-fold induction 3.2

Suspension culture								
Viability test on orbital shaker (Eppendorf Thermomixer C, 1000 rpm at 37 °C with 0.5 x 10 ⁶ cells in 0.5 ml HM-Cryo):								
Time (h)	0	0.5	1	1.5	2	3	4	5
Viability (%)	79.5	64.5	61.5	54.3	62.3	54.9	52.5	58.4
<p>Note: Yield, viability, recovery and activity assays were performed at PRIMACYT using PRIMACYT's manual for thawing, plating and culture of primary cryopreserved hepatocytes.</p> <p>Store at -150 °C or in the vapour phase of LN₂</p> <p>This product should be considered as potential biohazard. Only intended for <i>in vitro</i> use.</p>								

Detailed animal information and husbandry conditions	
Species	Rat (<i>Rattus norvegicus</i> forma domestica)
Strain	Wistar:Han IGS rat // CrI:Wi(Han), IGS (International Genetic Standard)
Vendor	Charles River Germany GmbH & Co. KG, Sulzbach, FRG
Food	Altromin Maintenance diet for rats/mice (ad libitum), Altromin, Lage, FRG
Water	ad libitum
Light/Dark cycle	07:00-19:00 light / 19:00-07:00 dark (12 hours light/dark)
Temperature	20-24 °C
Humidity	40-70 %
Bedding	Hugro hemp bedding, Saerbeck, FRG
Cage	Tecniplast Eurostandard Type III and Type IV incl. behavioural enrichments for the animals
<p>Animals were housed under veterinary control and allowed to acclimate ≥ 7 days before use. Animal housing permits according to §11 Abs. 1 TSchG, dated March 20, 2017 and March 22, 2022 under supervision of Veterinary Office of Landkreis Ludwigslust/Parchim, FRG. Hepatocytes were obtained from a non-infectious, non-contagious, healthy animal. The animal does not originate from a facility conducting work or research with animal pathogens.</p>	
Issued by: A. Ullrich	Verified by: T. Krimmling