

Corning® 3D Spheroid-qualified Primary Human Hepatocytes

Catalog Number	454552
Lot Number	404
Quantity / Package	1.5 mL
Storage Conditions	Liquid Nitrogen Vapor Phase
Manufacturing Date (MONTH/DAY/YEAR)	08/21/15
Application(s)	3D Primary Human Hepatocyte Spheroid Culture

Additional Information

- Refer to the "Corning® 3D Spheroid-qualified Primary Human Hepatocytes – Instruction for Use" for instruction on establishing primary human hepatocyte spheroid cultures

Safety Information

- Chemical hazard assessment indicates this product is not hazardous, therefore no SDS (Safety Data Sheet) is provided. Handle in accordance with good industrial hygiene and laboratory safety practices.

Hazard Warning

- This hepatocyte preparation was prepared from fresh human tissue. The donor for the tissue used to prepare this material has been tested for pathogens by serological and PCR based testing. Testing results may be found in tables below.
- Treat all products containing human derived materials as potentially infectious, as no known test methods can offer assurance that products derived from human tissues will not transmit infectious agents.
- All persons handling human hepatocytes must use Universal Precautions in accordance with the US OSHA Bloodborne Pathogens Final Standard and/or the European Council Directive on the protection of workers from risks related to exposure to biological agents at work (90/679/EEC) and it's relevant European National Transpositions.

Donor Information

Specimen	Results
Donor Number	HMC1068
Gender	Male
Age	64 years
Race	Caucasian
Cause of Death	CVA 2nd ICH
Smoker	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N Cigarettes; 2.5 ppd x 35 years. Quit 9 years ago.
Social History	Beer; 2-3 a week for the last couple of years. Little bit more before that but NOK unable to provide specifics
Medical History	A-fib issues, 2 years ago. HTN- diagnosed in 2013. Renal retention, 2 years ago. Blood pressure meds, Aspirin, Centrum Silver, and Vitamin supplements

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	(as reported by NOK). Heparin, Mannitol, Neosynephrine, Solumedrol, Anti-hypertensives, and Ancef (Administered in the hospital)
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Results of Donor Serology Testing

HIV 1	HIV 2	HTLV 1	HTLV 2	HBcAb IgG	HBcAb IgM	HCV	CMV	RPR	EBV IgG	EBV IgM
-	-	ND	ND	-	-	-	+	-	+	ND

ND= Not Done

Results of PCR-Based Pathogenicity Testing

HIV 1	HIV 2	HTLV 1	HTLV 2	HBV	HCV	CMV
ND	ND	ND	ND	ND	ND	ND

ND= Not Detected

3D Primary Human Hepatocyte Spheroid Culture

- All 3D liver spheroid culture was carried on Corning 96-well Spheroid Microplates (Cat. No. 4515 or 4520).
- The seeding medium was supplemented William's E medium with 10% Fetal Bovine Serum (FBS).
- On day 0, cells were thawed quickly at 37°C using a thawing medium to ensure viability at greater than 75%.
- Cells were seeded at 1 x 10³ cells/well in 100µL seeding media and then centrifuged at 100g for 2 minutes at room temperature.
- On day 1, spheroid culture was rotated on an orbital rotator at 450rpm for 5 minutes at room temperature and put back to culture.
- On day 2, spheroid culture was fed with 100µL/well using supplemented William's E medium (no FBS), then rotated at 450rpm for 5 minutes at room temperature and put back to tissue culture incubator.
- On day 5, spheroid culture was examined under microscope for monitoring spheroid formation, 100µL/well old medium was removed and 100µL/well fresh supplemented William's E medium was added.
- Half medium changes as described above were performed every 2 to 3 days for spheroid culture.
- Spheroid sizes (diameter, µm) and ATP levels (pmol/spheroid) were measured on day 7, 14, 21 and 28 in culture.

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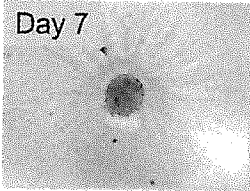
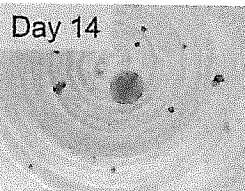
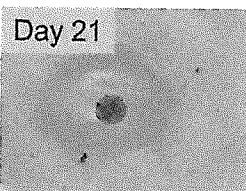
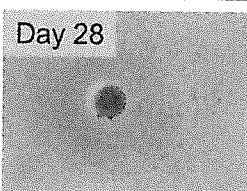
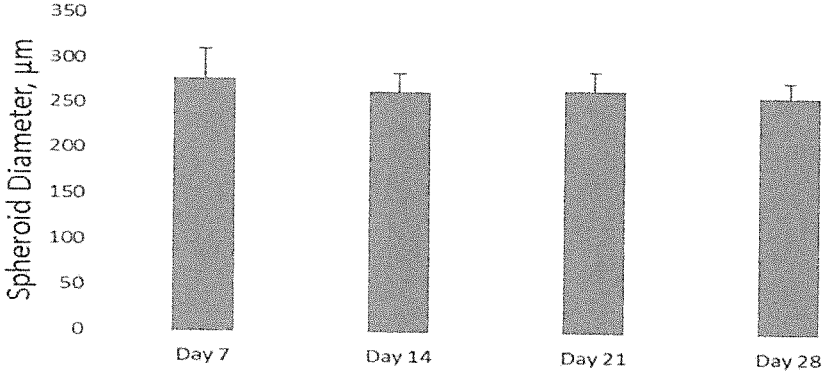
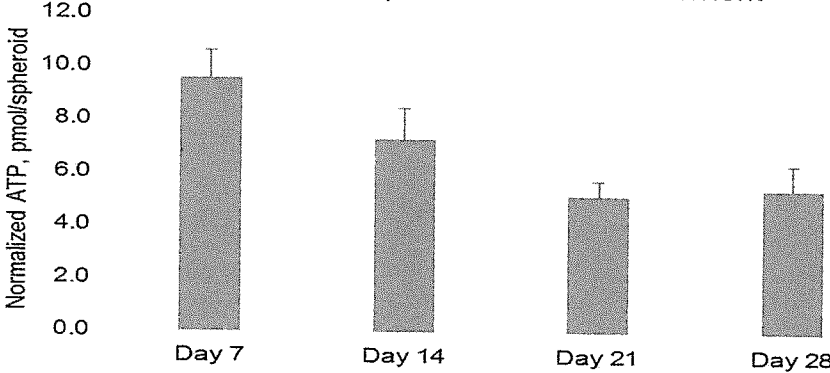
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Results of primary human hepatocyte spheroid culture

Thawing Results	Cell Viability (%): 86 Cell Recovery (10⁶ cells per vial): 8.4													
Morphology	 <p>Day 7</p>	 <p>Day 14</p>	 <p>Day 21</p>	 <p>Day 28</p>										
Spheroid Size Measurement	<p style="text-align: center;">Lot 348A Spheroid Size Measurement</p>  <table border="1"> <caption>Lot 348A Spheroid Size Measurement Data</caption> <thead> <tr> <th>Day</th> <th>Spheroid Diameter (µm)</th> </tr> </thead> <tbody> <tr> <td>Day 7</td> <td>~275</td> </tr> <tr> <td>Day 14</td> <td>~260</td> </tr> <tr> <td>Day 21</td> <td>~260</td> </tr> <tr> <td>Day 28</td> <td>~250</td> </tr> </tbody> </table>				Day	Spheroid Diameter (µm)	Day 7	~275	Day 14	~260	Day 21	~260	Day 28	~250
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Quality Assurance

13 Nov, 2013
Date

Revision History				
Rev.	Change No.	Description of Change	Revised By	Revised Date
1	CC 11257	Initial Release	Feng Li	10-30-2018

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