Cell Line Details

Product code:	HEP-002
Product name:	iPSC-derived Human Hepatocytes: Patient-derived Compound Heterozygous Glycogen Storage Disease Type 1 Alpha; G222R/Q347X
Lot number:	XXXXXX
Storage conditions:	Store at less than -130ºC
QC completion date:	XXXXXX

Cell Quality Controls

Test	**Method**	**Specification**	**Result**
Virus test for original iPSC clone (HIV1, HIV2, Hepatitis A, HBV, HCV, HTLV-1, HTLV-2)	PCR	Not detected	Pass
Post thaw viability	Automated cell counter	≥ 70% viable	Pass
Viable cells per vial	Automated cell counter	≥ 5.0×10^6	Pass
Cell morphology	Visual check	N/A	Pass (Fig.1)
Key hepatocyte maturity markers (*ALB, A1AT, HNF4a)*	qPCR	Present	Pass (Fig.2)
Disease confirmation	Sanger sequencing	Mutation present	Pass (Fig.3)

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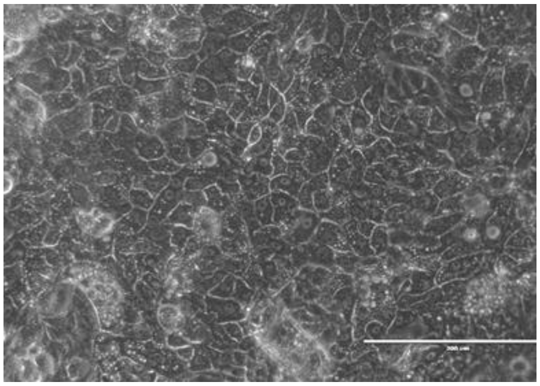
Appendix

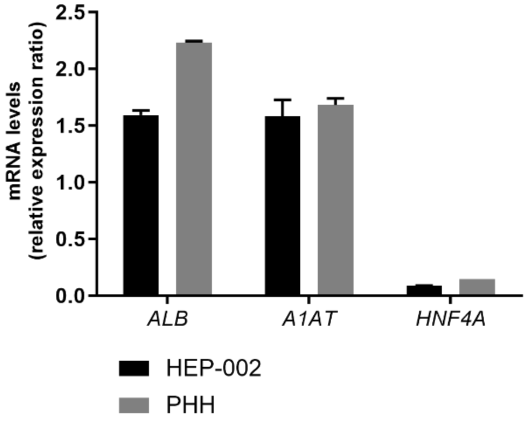
1. Cell morphology

Figure 1. Morphology of cryopreserved hepatocyte-like cells, 14 days post-thaw. Brightfield picture, magnification: 200x.



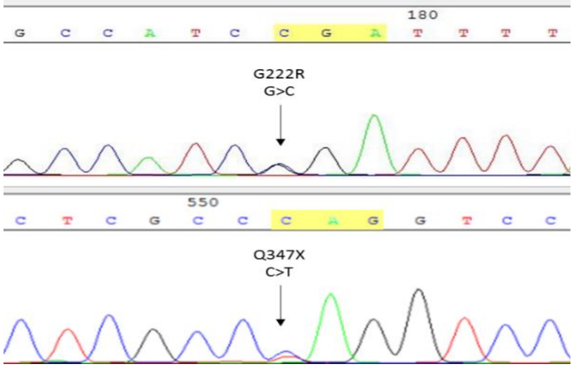
2. Detection of hepatocyte maturity markers via qPCR

Figure 2. mRNA expression of the key hepatocyte maturity markers *ALB* (Albumin), *A1AT* (Alpha-1 Antitrypsin) and *HNF4A* (Hepatocyte Nuclear Factor-4) in cryopreserved hepatocyte-like cells (black bars) and primary human hepatocytes (PHH, grey bars), 14 days post-thaw. mRNA data are normalized to endogenous *PPIA* expression, and are presented as mean±SD of n=3 technical replicates.



3. Disease confirmation via Sanger sequencing

Figure 3. Sanger sequencing showing heterozygous G222R mutation (GGA > CGA) and heterozygous Q347X mutation (CAG > TAG) in the *G6PC* gene. The codon change is highlighted in yellow.



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Checked by,

signature

QC Scientist

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