

# Improved Hepatocyte Characterization

We have moved to the next level in characterization depth to improve confidence in the performance of your primary human and animal hepatocytes. Taking feedback from researchers using our hepatocyte products, we have added dozens of new testing to our routine hepatocyte characterization process.

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## Interaction Qualified Plateable Human Hepatocytes

Our former "Induction Qualified" hepatocytes are being renamed to "Interaction Qualified" hepatocytes. In addition to what you have come to expect with high viability, high yields, basal metabolism performance, and detection of P450 gene transcript induction, we have now also added insights into drug transporter function and capacity of our cells for long-term, high-throughput, and 3-dimensional culture applications.

With the addition of 26 new tests, we have provided Interaction Qualified Human Hepatocytes with a broad and diverse set of performance metrics to enable researchers to identify precisely the right batch for their needs.

Interaction Qualified Human Hepatocytes Reported Characteristics, Catalog No. HUCPI	Previous	Improved
Isolation viability	X	X
Isolation yield	X	X
Induction fold CYP1A2	X	X
Induction fold CYP2B6	X	X
Induction fold CYP3A4	X	X
Basal activity CYP1A2	X	X
Basal activity CYP2B6	X	X
Basal activity CYP3A4	X	X
Induction fold mRNA CYP1A2		X
Induction fold mRNA CYP2B6		X
Induction fold mRNA CYP3A4		X
Induction fold mRNA CYP2C8		X

Interaction Qualified Human Hepatocytes Reported Characteristics, Catalog No. HUCPI	Previous	Improved
Induction fold mRNA CYP2C8		X
Plated clearance CYP2D6		X
Plated clearance CYP3A4		X
Suspension metabolism CYP1A2		X
Suspension metabolism CYP2A6		X
Suspension metabolism CYP2B6		X
Suspension metabolism CYP2C9		X
Suspension metabolism CYP2C19		X
Suspension metabolism CYP2D6		X
Suspension metabolism CYP2E1		X
Suspension metabolism CYP3A4M		X
Suspension metabolism CYP3A4T		X
7HC appearance		X
7HCS appearance		X
7HCG appearance		X
Long-term culture		X
Spheroids formation		X
96-well plating		X
BSEP efflux rate		X
OATP1B1/3 uptake rate		X
OCT-1 uptake rate		X
NTCP uptake rate		X
Active MPP+ uptake		X
Active PAH uptake		X
Active estrone-3-sulfate uptake		X
Active taurocholate uptake		X
Cell sterility		X

## General Purpose Plateable Human Hepatocytes

Our general purpose hepatocytes now include measurements of basal metabolism levels and ability to be used in long-term, high-throughput, and 3D cultures. With the addition of 18 new tests the General Purpose Qualified Hepatocytes are ideal for toxicity studies and disease modelling approaches.

General Purpose Human Hepatocytes, Catalog No. HUCPG	Previous	Improved
Isolation viability	X	X
Isolation yield	X	X
Plated clearance CYP2C9		X
Plated clearance CYP2D6		X
Plated clearance CYP3A4		X
Suspension metabolism CYP1A2		X
Suspension metabolism CYP2A6		X
Suspension metabolism CYP2B6		X
Suspension metabolism CYP2C9		X
Suspension metabolism CYP2C19		X
Suspension metabolism CYP2D6		X
Suspension metabolism CYP2E1		X
Suspension metabolism CYP3A4M		X
Suspension metabolism CYP3A4T		X
7HC appearance		X
7HCS appearance		X
7HCG appearance		X
Long-term culture		X
Spheroids formation		X
96-well plating		X
Cell sterility		X

## Preclinical Animal Species Plateable Hepatocytes

Included in the updates to characterization data is testing for spheroid formation in all of our newly created animal hepatocyte batches. Look for the Verified for Spheroids™ Hepatocytes line in the individual batch CoFA for batches capable of forming spheroids within 5 days of plating to ultra-low attachment plates.

Animal hepatocytes: Species: Mouse CD-1, Mouse C57BL/6, Rat Wistar, Rat Wistar Hannover, Rat Sprague Dawley, Dog Beagle, Monkey Cyno, and Monkey Rhesus	Previous	Improved
Isolation viability	X	X
Isolation yield	X	X
7HC appearance	X	X
7HCS appearance	X	X
7HCG appearance	X	X
Spheroids formation		X
Cell sterility		X

## Product Table

Product description	Catalog no.
Human cryopreserved hepatocytes, plateable, interaction qualified	HUCPI
Human cryopreserved hepatocytes, plateable, general purpose	HUCPG
Cynomolgous hepatocytes - plateable	CYCP01-C
Mouse (C57BL/6) hepatocytes - plateable	MBCP01
Mouse (CD-1) hepatocytes - plateable	MCCP01
Rat (SD) hepatocytes - plateable	RSCP01
Rat (Wistar Hannover) hepatocytes - plateable	RWCP01
Rat (Wistar) hepatocytes - plateable	RICP01
Dog (Beagle) hepatocytes - plateable	DBC01

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