

# CryostaX

Single Freeze Pooled Plateable Cryopreserved Human Hepatocytes

**HPCH05+**

**Lot No. 2110283**

Pool of 5

Assured Minimum Yield:  $5.0 \times 10^6$  cells per vial  
 Viability: 88%  
 Recommended Seeding Density 1.3 million cells per mL

Enzyme	Marker Substrate Reaction	[S] ( $\mu$ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	$10.7 \pm 0.48$
CYP2B6	Bupropion hydroxylation	500	$9.37 \pm 2.06$
CYP2C8	Amodiaquine N-dealkylation	20	$20.7 \pm 1.6$
CYP2C9	Tolbutamide hydroxylation	150	$12.3 \pm 0.95$
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	$5.96 \pm 0.12$
CYP2D6	Dextromethorphan O-demethylation	75	$15.4 \pm 1.9$
CYP3A4/5	Midazolam 1'-hydroxylation	30	$23.8 \pm 1.7$
UGT	7-Hydroxycoumarin glucuronidation	100	$233 \pm 29$
SULT	7-Hydroxycoumarin sulfonation	100	$17.4 \pm 1.9$

Values for enzyme activities were determined at a single substrate concentration and are mean  $\pm$  standard deviation of three or more determinations.

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, cultured human hepatocytes (~ 20 hours post plating) were incubated in triplicate at  $37 \pm 2$  °C for 30 or 45 minutes (substrate dependent) in OptiIncubate and marker substrate, at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

## Donor Information

<b>Gender:</b>	Males (2), Female (3)
<b>Age:</b>	19-66 years of age
<b>Race:</b>	Caucasian (5)
<b>Cause of Death:</b>	Head trauma (3), Cerebrovascular accident (1), Anoxia (1)
<b>Antibody to Cytomegalovirus (CMV):</b>	Positive (3), Negative (2)
<b>Human Immunodeficiency Virus (HIV):</b>	Negative (5)
<b>Hepatitis B Surface Antigen (HbsAg):</b>	Negative (5)
<b>Antibody to Hepatitis C Virus (HCV):</b>	Negative (5)



**Store in liquid nitrogen, vapor phase**

CAUTION: This sample should be considered as a potential biohazard and universal precautions should be followed. Intended for *in vitro* use only.

These data were generated by and are the property of XenoTech. These data are not to be reproduced, published or distributed without the express written consent of XenoTech.

Datasheet prepared 28 October 2021

# CryostaX

Single Freeze Pooled Plateable Cryopreserved Human Hepatocytes

**HPCH05+**

**Lot No. 2110283**

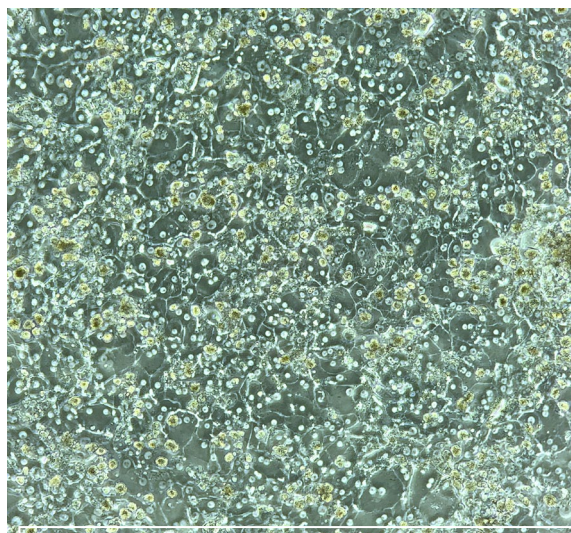
Pool of 5

Assured Minimum Yield:  $5.0 \times 10^6$  cells per vial  
 Viability: 88%  
 Recommended Seeding Density 1.3 million cells per mL

<i>Uptake Transporter</i>	<i>Marker Substrate</i>	<i>[S] (<math>\mu</math>M)</i>	<i>Uptake Ratio</i>
OATP1B1	Estrone sulfate	0.1	6.49
OATP1B3	CCK-8	0.1	3.39
OCT1	MPP+	0.1	7.25
NTCP	TCA	0.1	13.1

To measure uptake activities in cultured human hepatocytes (~4 hours post plating), hepatocytes were incubated in triplicate at  $37 \pm 2^\circ\text{C}$  for 1 minute in OptiIncubate Media and marker substrate, at the final concentrations indicated. Uptake was determined by liquid scintillation counter. Protein determinations were performed post incubation via isolation of microsomal fractions and protein measurements using the Pierce BCA assay.

Uptake ratio refers to the difference between uptake activities between trace substrate and excess substrate.



Lot 2110283 on Day 4 of culture

<b>Plate Format</b>	<b>Recommended Seeding Density (million cells/mL)</b>	<b>Recommended Seeding/ Feeding Volume Per Well</b>
6-well format	1.3	1.7 mL
12-well format	1.3	650 $\mu$ L
24-well format	1.3	330 $\mu$ L
48-well format	0.75	200 $\mu$ L
96-well format	0.75	75 $\mu$ L