

# CryostaX

Pooled Cryopreserved Human Hepatocytes

**HPCH10 Lot No. 2310193**

Pool of 10 (5 Female and 5 Male)

Assured Minimum Yield: 5.0 x 10<sup>6</sup> cells per vial  
Viability: 85%

Enzyme	Marker Substrate Reaction	[S] (μM)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	95.1 ± 1.1
CYP2A6	Coumarin 7-hydroxylation	50	28.5 ± 3.6
CYP2B6	Bupropion hydroxylation	500	33.2 ± 2.6
CYP2C8	Amodiaquine N-dealkylation	20	346 ± 51
CYP2C9	Diclofenac 4'-hydroxylation	100	241 ± 3
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	40.3 ± 1.1
CYP2D6	Dextromethorphan O-demethylation	80	47.5 ± 1.7
CYP2E1	Chlorzoxazone 6-hydroxylation	500	128 ± 16
CYP3A4/5	Testosterone 6β-hydroxylation	250	402 ± 8
CYP3A4/5	Midazolam 1'-hydroxylation	30	113 ± 15
UGT	7-Hydroxycoumarin glucuronidation	100	676 ± 11
SULT	7-Hydroxycoumarin sulfonation	100	20.3 ± 0.8

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes (1 x 10<sup>6</sup> cells/mL) in suspension were incubated in triplicate at 37 ± 2°C for 30 minutes 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.

## Uptake Activity Data

Uptake Transporter	Marker Substrate	[S] (μM)	Rate (pmol/million cells/min)
OATP1B1	Estrone sulfate	1	18.7
OATP1B3	CCK-8	1	6.1
OCT1	MPP+	1	6.0
NTCP	TCA	1	4.2

To measure uptake activities, hepatocytes (1.0 x 10<sup>6</sup> cells/mL) in suspension were incubated in triplicate at 4°C and 37°C for 1 minute in Krebs-Henseleit buffer and marker substrate, at the final concentrations indicated. Uptake of substrate was measured by scintillation counter.

## Donor Information

<b>Gender:</b>	Males (5), Females (5)
<b>Age:</b>	33-67 years of age
<b>Race:</b>	African American (2), Caucasian (8)
<b>Cause of Death:</b>	Anoxia (2), Cerebrovascular accident (5), Head trauma (3)
<b>Antibody to Cytomegalovirus (CMV):</b>	Positive (6), Negative (4)
All donors tested negative for Human Immunodeficiency Virus (HIV), Hepatitis B Surface Antigen (HBsAg), Hepatitis C Virus, and Rapid Plasma Reagin.	



**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.

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This data sheet serves as a Certificate of Analysis and has been approved by **Stephanie Helmstetter, Assistant Director.**  
Signature and Date: Stephanie Helmstetter 15 August 2023