

# CryostaX

Single-Freeze Pooled Cryopreserved Human Hepatocytes

**HPCH20-50**

**Lot No. 2110077**

Pool of 20

Assured Minimum Yield: 5.0 x 10<sup>6</sup> cells per vial  
 Viability: 76%

Enzyme	Marker Substrate Reaction	[S] (μM)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	48.3 ± 7.8
CYP2A6	Coumarin 7-hydroxylation	50	64.2
CYP2B6	Bupropion hydroxylation	500	47.5 ± 1.4
CYP2C8	Amodiaquine N-dealkylation	20	408 ± 42
CYP2C9	Diclofenac 4'-hydroxylation	100	213 ± 2
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	24.5 ± 1.0
CYP2D6	Dextromethorphan O-demethylation	80	38.3 ± 1.8
CYP2E1	Chlorzoxazone 6-hydroxylation	500	168
CYP3A4/5	Testosterone 6β-hydroxylation	250	287 ± 33
CYP3A4/5	Midazolam 1'-hydroxylation	30	63.5 ± 0.8
UGT	7-Hydroxycoumarin glucuronidation	100	619 ± 85
SULT	7-Hydroxycoumarin sulfonation	100	12.4 ± 1.6

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	7.12
OATP1B3	CCK-8	1	2.26
OCT1	MPP+	1	3.72
NTCP	TCA	1	3.57

To measure uptake activities, hepatocytes (0.5 x 10<sup>6</sup> cells/mL) in suspension were incubated in triplicate at 4°C ± 2°C and 37°C ± 2°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 (10), Females (10)
<b>Age:</b>	16-69 years of age
<b>Race:</b>	Caucasian (17), Asian (2), African American (1)
<b>Cause of Death:</b>	Head trauma (7), Anoxia (10), Cerebrovascular accident (3)
<b>Antibody to Cytomegalovirus (CMV):</b>	Positive (10), Negative (10)
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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Datasheet prepared 24 March 2021