

# CryostaX

Single Freeze Pooled Cryopreserved Human Hepatocytes

**HPCH10 Lot No. 1310262**

Pool of 10 (5 Female and 5 Male)

Assured Minimum Yield:  $5.0 \times 10^6$  cells per vial  
 Viability: 84.0%

Data Sheet

Enzyme	Marker Substrate Reaction	[S] ( $\mu$ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	$50.5 \pm 1.6$
CYP2A6	Coumarin 7-hydroxylation	50	$31.3 \pm 1.7$
CYP2B6	Bupropion hydroxylation	500	$22.1 \pm 2.7$
CYP2C8	Amodiaquine N-dealkylation	20	$77.8 \pm 6.2$
CYP2C9	Diclofenac 4'-hydroxylation	100	$139 \pm 12$
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	$5.84 \pm 0.53$
CYP2D6	Dextromethorphan O-demethylation	80	$24.2 \pm 2.4$
CYP2E1	Chlorzoxazone 6-hydroxylation	500	$63.7 \pm 8.1$
CYP3A4/5	Testosterone 6 $\beta$ -hydroxylation	250	$181 \pm 20$
CYP3A4/5	Midazolam 1'-hydroxylation	30	$42.1 \pm 6.1$
UGT	7-Hydroxycoumarin glucuronidation	100	$276 \pm 18$
SULT	7-Hydroxycoumarin sulfonation	100	$17.4 \pm 0.7$

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes ( $1 \times 10^6$  cells/mL) in suspension were incubated in triplicate at  $37 \pm 1^\circ\text{C}$  for 30 minutes in Krebs-Henseleit buffer 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] ( $\mu$ M)	Rate (pmol/million cells/min)
OATP1B1	Esterone sulfate	1	11.6
OATP1B3	CCK-8	1	4.17
OCT1	MPP+	1	5.25
NTCP	TCA	1	16.5

To measure uptake activities, hepatocytes ( $1.0 \times 10^6$  cells/mL) in suspension were incubated in triplicate at  $4^\circ\text{C}$  and  $37^\circ\text{C}$  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>	20-71 years of age
<b>Race:</b>	Caucasian (9), African American (1)
<b>Cause of Death:</b>	Anoxia (2), Cerebrovascular accident (9), Head trauma (1)
<b>Cytomegalovirus (CMV):</b>	Positive (5), Negative (5)
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 January 2019