

CryostaX

Single-Freeze Pooled Cryopreserved Human Hepatocytes

HPCH20-50

Lot No. 1910146

Pool of 20

Assured Minimum Yield:

5.0 x 10⁶ cells per vial

Viability:

74%

Enzyme	Marker Substrate Reaction	[S] (μM)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	47.4 ± 0.6
CYP2A6	Coumarin 7-hydroxylation	50	46.9 ± 1.1
CYP2B6	Bupropion hydroxylation	500	45.3 ± 5.6
CYP2C8	Amodiaquine N-dealkylation	20	320 ± 1
CYP2C9	Diclofenac 4'-hydroxylation	100	187 ± 0
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	14.8 ± 1.2
CYP2D6	Dextromethorphan O-demethylation	80	35.5 ± 1.9
CYP2E1	Chlorzoxazone 6-hydroxylation	500	38.2 ± 1.9
CYP3A4/5	Testosterone 6β-hydroxylation	250	216 ± 20
CYP3A4/5	Midazolam 1'-hydroxylation	30	43.9 ± 0.6
UGT	7-Hydroxycoumarin glucuronidation	100	530 ± 80
SULT	7-Hydroxycoumarin sulfonation	100	19.2 ± 1.2

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes (1 x 10⁶ 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	10.8
OATP1B3	CCK-8	1	4.19
OCT1	MPP+	1	8.19
NTCP	TCA	1	3.83

To measure uptake activities, hepatocytes (0.5 x 10⁶ 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

Gender:	Males (10), Females (10)
Age:	20-65 years of age
Race:	Caucasian (17), Asian (1), African American (1), Hispanic (1)
Cause of Death:	Head trauma (8), Anoxia (8), Cerebrovascular accident (4)
Antibody to Cytomegalovirus (CMV):	Positive (9), Negative (11)
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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