

CryostaX

Single-Freeze Pooled Cryopreserved Human Hepatocytes

HPCH20-50 Lot No. 1410252

Pool of 20 (10 Female and 10 Male)

Assured Minimum Yield: 5.0×10^6 cells per vial
 Viability: 77.8%

Enzyme	Marker Substrate Reaction	[S] (μM)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	37.9 ± 4.1
CYP2A6	Coumarin 7-hydroxylation	50	41.2 ± 0.8
CYP2B6	Bupropion hydroxylation	500	42.1 ± 4.2
CYP2C8	Amodiaquine N-dealkylation	20	95.9 ± 11.1
CYP2C9	Diclofenac 4'-hydroxylation	100	145 ± 17
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	9.84 ± 0.90
CYP2D6	Dextromethorphan O-demethylation	80	23.3 ± 5.8
CYP2E1	Chlorzoxazone 6-hydroxylation	500	82.3 ± 11.6
CYP3A4/5	Testosterone 6β -hydroxylation	250	215 ± 18
CYP3A4/5	Midazolam 1'-hydroxylation	30	62.2 ± 10.3
UGT	7-Hydroxycoumarin glucuronidation	100	473 ± 11
SULT	7-Hydroxycoumarin sulfonation	100	16.0 ± 4.3

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes (1×10^6 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. TBD: To be determined.

Uptake Activity Data

Uptake Transporter	Marker Substrate	[S] (μM)	Rate (pmol/million cells/min)
OATP1B1	Esterone sulfate	1	21.61
OATP1B3	CCK-8	1	2.06
OCT1	MPP+	1	7.28
NTCP	TCA	1	5.34

To measure uptake activities, hepatocytes (0.5×10^6 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:	7-74 years of age
Race:	Caucasian (18), African American (2)
Cause of Death:	Cerebrovascular accident (11), Anoxia (8), Head trauma (1)
Cytomegalovirus (CMV):	Positive (11), Negative (9)
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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