

CryostaX

Single-Freeze Pooled Cryopreserved Human Hepatocytes

HPCH20-50

Lot No. 2310301

Pool of 20

Assured Minimum Yield: 5.0×10^6 cells per vial
 Viability: 83%

Enzyme	Marker Substrate Reaction	[S] (μ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	48.8 \pm 4.1
CYP2A6	Coumarin 7-hydroxylation	50	31.8 \pm 5.9
CYP2B6	Bupropion hydroxylation	500	68.8 \pm 6.9
CYP2C8	Amodiaquine N-dealkylation	20	436 \pm 64
CYP2C9	Diclofenac 4'-hydroxylation	100	288 \pm 18
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	30.8 \pm 5.5
CYP2D6	Dextromethorphan O-demethylation	80	71.3 \pm 3.3
CYP2E1	Chlorzoxazone 6-hydroxylation	500	192 \pm 21
CYP3A4/5	Testosterone 6 β -hydroxylation	250	401 \pm 9
CYP3A4/5	Midazolam 1'-hydroxylation	30	88.3 \pm 1.7
UGT	7-Hydroxycoumarin glucuronidation	100	527 \pm 40
SULT	7-Hydroxycoumarin sulfonation	100	24.1 \pm 2.5

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 $37 \pm 2^\circ\text{C}$ 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] (μ M)	Rate (pmol/million cells/min)
OATP1B1	Estrone sulfate	1	18.4
OATP1B3	CCK-8	1	6.6
OCT1	MPP+	1	5.8
NTCP	TCA	1	5.4

To measure uptake activities, hepatocytes (0.5×10^6 cells/mL) in suspension were incubated in triplicate at $4^\circ\text{C} \pm 2^\circ\text{C}$ and $37^\circ\text{C} \pm 2^\circ\text{C}$ 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

Gender:	Males (10), Females (10)
Age:	14-68 years of age
Race:	Caucasian (15), African American (5)
Cause of Death:	Cerebrovascular accident (6), Anoxia (10), Head trauma (4)
Antibody to Cytomegalovirus (CMV):	Positive (13), Negative (7)
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. These data were generated by and are the property of XenoTech. These data are not to be reproduced, published or distributed without the express written consent of XenoTech.

This data sheet serves as a Certificate of Analysis and has been approved by **Stephanie Helmstetter, Assistant Director.**
 Signature and Date: Stephanie Helmstetter 21 March 2024