

## HCP100.H15 Lot No. 2210212

Pool of 100 (50 Males and 50 Females)

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

Viability: 81%

This product was pooled from individual human hepatocytes that have been frozen and thawed. The yield and viability given above are based on experiments performed at XenoTech using our thawing protocol that includes a density gradient fractionation and the K8500 OptiThaw Kit. Details of XenoTech's hepatocyte thawing protocol can be found at [www.xenotech.com](http://www.xenotech.com). It is recommended to use XenoTech's thawing protocol, which includes a density gradient step, to maximize the viability of the recovered cells.

Enzyme	Marker Substrate Reaction	[S] ( $\mu$ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	$50.6 \pm 0.6$
CYP2A6	Coumarin 7-hydroxylation	50	$45.8 \pm 3.9$
CYP2B6	Bupropion hydroxylation	500	$38.7 \pm 3.5$
CYP2C8	Amodiaquine N-dealkylation	20	$313 \pm 10$
CYP2C9	Diclofenac 4'-hydroxylation	100	$205 \pm 22$
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	$12.3 \pm 0.6$
CYP2D6	Dextromethorphan O-demethylation	80	$42.5 \pm 0.9$
CYP2E1	Chlorzoxazone 6-hydroxylation	500	$99.2 \pm 4.1$
CYP3A4/5	Testosterone 6 $\beta$ -hydroxylation	250	$167 \pm 6$
CYP3A4/5	Midazolam 1'-hydroxylation	30	$48.9 \pm 0.8$
UGT	7-Hydroxycoumarin glucuronidation	100	$319 \pm 32$
SULT	7-Hydroxycoumarin sulfonation	100	$12.8 \pm 1.3$

Values for enzyme activities were determined at a single substrate concentration run with triplicate determinations.

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  $37 \pm 2^\circ\text{C}$  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] ( $\mu$ M)	Rate (pmol/million cells/min)
OATP1B1	Estrone sulfate	1	13.5
OATP1B3	CCK-8	1	1.6
OCT1	MPP+	1	5.2
NTCP	TCA	1	4.6

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 (50), Females (50)
<b>Age:</b>	8-74 years of age
<b>Race:</b>	Caucasian (80), African American (9), Asian (3), Hispanic (8)
<b>Cause of Death:</b>	Anoxia (39), Head trauma (25), Cerebrovascular accident (36)
<b>Antibody to Cytomegalovirus (CMV):</b>	Positive (55), Negative (45)
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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**This data sheet serves as a Certificate of Analysis and has been approved by Stephanie Helmstetter, Senior Manager.**

Signature and Date: Stephanie Helmstetter 25 October 2022