XENOTECH
A BioIVT Company

Data Sheet

H1500.H15C+ Lot No. HC3-51

Cryopreserved Human Hepatocytes
Human, Female, Individual

Assured Minimum Yield: 6.0 x 10^6 cells per vial
Viability: 95%

Yield and viability are based on experiments performed at XenoTech using XenoTech's thawing protocol and K8000 OptiThaw Hepatocyte Kit.

Assured Minimum Yield: 6.0 x 10^6 cells per vial
Viability: 86%

Yield and viability are based on experiments performed at XenoTech using XenoTech's thawing protocol and K2400 (no Percoll gradient) Hepatocyte Isolation Kit.

Enzyme	*Marker Substrate Reaction*	*[S] (µM)*	*Rate (pmol/million cells/min)*
CYP1A2	Phenacetin *O*-dealkylation	100	52.5 ± 4.9
CYP2A6	Coumarin 7-hydroxylation	50	62.1 ± 6.5
CYP2B6	Bupropion hydroxylation	500	35.3 ± 1.1
CYP2C8	Amodiaquine *N*-dealkylation	20	218 ± 6
CYP2C9	Diclofenac 4'-hydroxylation	100	277 ± 34
CYP2C19	*S*-Mephenytoin 4'-hydroxylation	400	31.9 ± 2.1
CYP2D6	Dextromethorphan *O*-demethylation	80	44.2 ± 1.5
CYP2E1	Chlorzoxazone 6-hydroxylation	500	121 ± 23
CYP3A4/5	Testosterone 6β-hydroxylation	250	658 ± 55
CYP3A4/5	Midazolam 1'-hydroxylation	30	78.2 ± 5.0
UGT	7-Hydroxycoumarin glucuronidation	100	605 ± 76
SULT	7-Hydroxycoumarin sulfonation	100	21.2 ± 1.1

Values for enzyme activities were determined at a single substrate concentration and are mean ± standard deviation of three or more determinations.

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes (1 x 10^6 /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.

Donor Information

Gender:	Female
Age:	66 years of age
Race:	Caucasian
Cause of Death:	Head Trauma
Antibody to Cytomegalovirus (CMV):	Negative

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.

Datasheet prepared 10 March 2020

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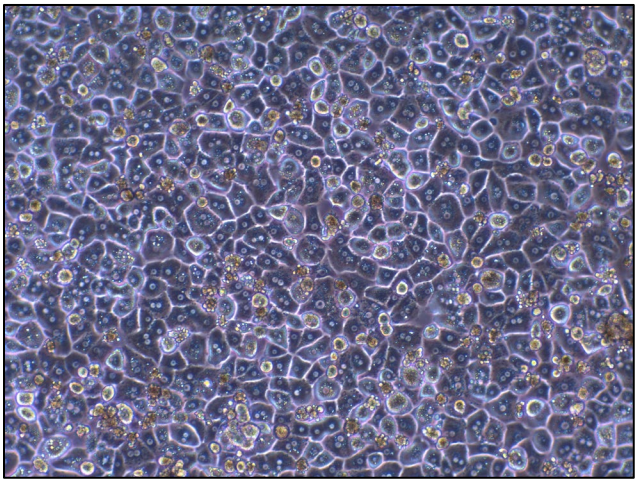
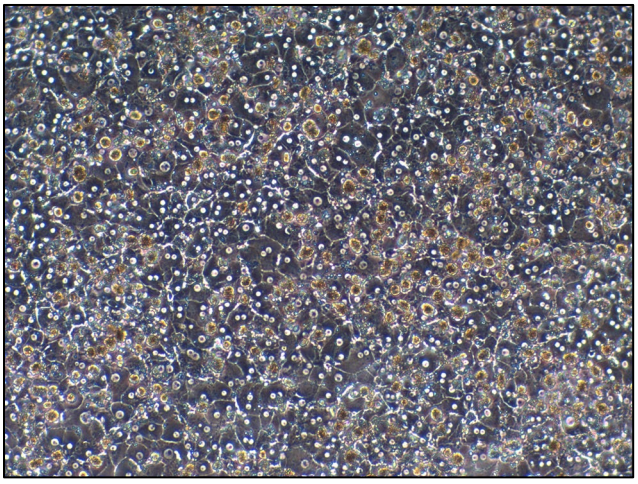
Hepatocyte Cell Culture



Photomicrograph (100x) of HC3-51 Day 1 of culture



Photomicrograph (100x) of HC3-51 incubation day

Plate Format	Recommended Seeding Density (million cells/mL)	Recommended Seeding/ Feeding Volume Per Well
6-well format	1.2	1.7 mL
12-well format	1.2	650 µL
24-well format	1.2	330 µL
48-well format	0.75	200 µL
96-well format	0.75	75 µL

Induction Data

Enzyme	Inducer	mRNA Fold Induction	Marker Substrate Reaction	Enzymatic Fold Induction
CYP1A2	Omeprazole (50 µM)	19.6	Phenacetin O-dealkylation	32.5
CYP2B6	Phenobarbital (750 µM)	4.9	Bupropion hydroxylation	2.5
CYP2B6	CITCO (100 nM)	6.0	Bupropion hydroxylation	3.5
CYP3A4	Rifampin (20 µM)	5.7	Midazolam 1'-hydroxylation	2.7

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