XENOTECH
A BioIVT Company

Data Sheet

H1000.H15C+ Lot No. HC0-5

Cryopreserved Human Hepatocytes
Human, Male, Individual

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 OptiThaw Hepatocyte Kit.

Enzyme	*Marker Substrate Reaction*	*[S] (µM)*	*Rate (pmol/million cells/min)*
CYP1A2	Phenacetin *O*-dealkylation	100	177 ± 10
CYP2A6	Coumarin 7-hydroxylation	50	212 ± 13
CYP2B6	Bupropion hydroxylation	500	39.0 ± 3.2
CYP2C8	Amodiaquine *N*-dealkylation	20	494 ± 52
CYP2C9	Diclofenac 4'-hydroxylation	100	221 ± 33
CYP2C19	*S*-Mephenytoin 4'-hydroxylation	400	28.0 ± 0.8
CYP2D6	Dextromethorphan *O*-demethylation	80	22.6 ± 3.9
CYP2E1	Chlorzoxazone 6-hydroxylation	500	60.5 ± 2.7
CYP3A4/5	Testosterone 6β-hydroxylation	250	159 ± 15
CYP3A4/5	Midazolam 1'-hydroxylation	30	154 ± 18
UGT	7-Hydroxycoumarin glucuronidation	100	560 ± 11
SULT	7-Hydroxycoumarin sulfonation	100	28.5 ± 2.7

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 ± 1°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:	Male
Age:	78 years of age
Race:	Caucasian
Antibody to Cytomegalovirus (CMV):	Not Determined
Human Immunodeficiency Virus (HIV):	Negative
Hepatitis B Surface Antigen (HbsAg):	Negative
Antibody to Hepatitis C Virus (HCV):	Negative

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 03 May 2018

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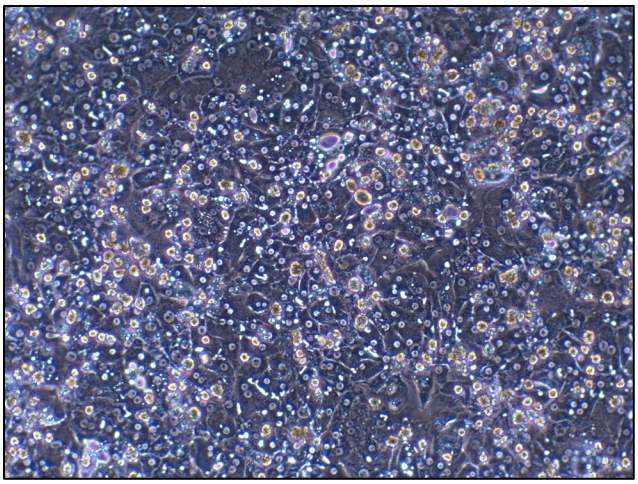
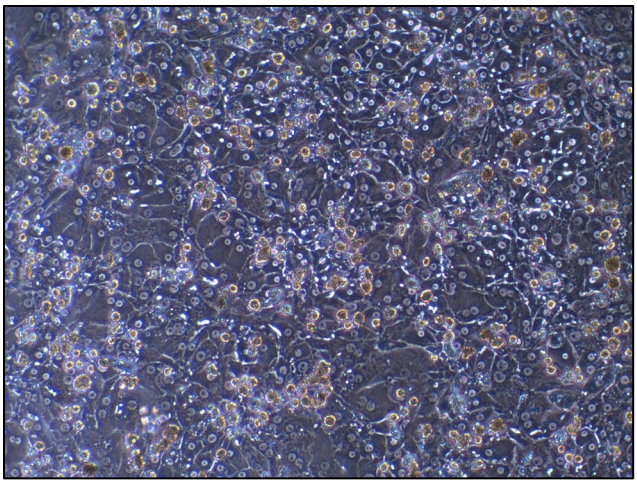
Hepatocyte Cell Culture



Photomicrograph (100x) of HC0-5 Day 3 of culture



Photomicrograph (100x) of HC0-5 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)	240	Phenacetin O-dealkylation	94.2
CYP2B6	Phenobarbital (750 µM)	7.2	Bupropion hydroxylation	5.9
CYP2B6	CITCO (100 nM)	8.9	Bupropion hydroxylation	4.7
CYP3A4	Rifampin (20 µM)	31.8	Midazolam 1'-hydroxylation	3.7