XENOTECH
A BioIVT Company

Data Sheet

H1000.H15B+ Lot No. HC2-25

Cryopreserved Human Hepatocytes
Human, Male, Individual

Assured Minimum Yield:	4.0 x 10^6 cells per vial
Viability:	86.5%

Yield and viability are based on experiments performed at XenoTech using XenoTech's thawing protocol and K2000 Hepatocyte Isolation Kit.

Enzyme	*Marker Substrate Reaction*	*[S] (µM)*	*Rate (pmol/million cells/min)*
CYP1A2	Phenacetin *O*-dealkylation	100	8.10 ± 0.48
CYP2A6	Coumarin 7-hydroxylation	50	25.3 ± 7.5
CYP2B6	Bupropion hydroxylation	500	105 ± 18
CYP2C8	Amodiaquine *N*-dealkylation	20	191 ± 15
CYP2C9	Diclofenac 4'-hydroxylation	100	159 ± 13
CYP2C19	*S*-Mephenytoin 4'-hydroxylation	400	0.667 ± 0.095
CYP2D6	Dextromethorphan *O*-demethylation	80	26.9 ± 3.1
CYP2E1	Chlorzoxazone 6-hydroxylation	500	167 ± 8
CYP3A4/5	Testosterone 6β-hydroxylation	250	137 ± 16
CYP3A4/5	Midazolam 1'-hydroxylation	30	54.9 ± 2.1
UGT	7-Hydroxycoumarin glucuronidation	100	1350 ± 210
SULT	7-Hydroxycoumarin sulfonation	100	39.8 ± 6.8

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 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.

Donor Information

Gender:	Male
Age:	58 years of age
Race:	Hispanic
Cause of Death:	Cerebrovascular Accident
Cytomegalovirus (CMV):	Positive

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 24 January 2019

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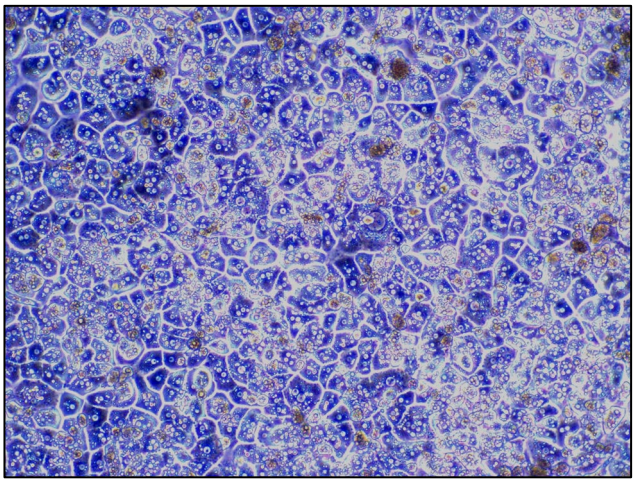
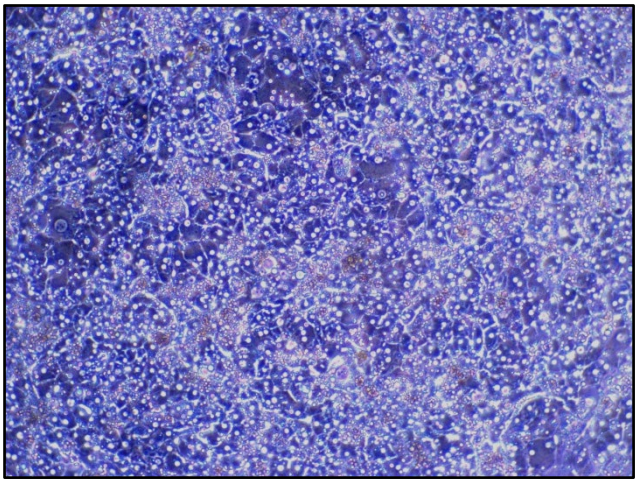
Hepatocyte Cell Culture



Photomicrograph (100x) of HC2-25 Day 2 of culture



Photomicrograph (100x) of HC2-25 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	Not Tested	

Induction Data

Enzyme	Prototypical Inducer	Marker substrate reaction	Fold Induction*
CYP1A2	Omeprazole (100 µM)	Phenacetin *O*-dealkylation	19.0
CYP2B6	Phenobarbital (750 µM)	Bupropion hydroxylation	5.93
CYP3A4	Rifampin (10 µM)	Testosterone 6β-hydroxylation	3.71

*Refers to the increase in pmol metabolite formed when compared to control.

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