

H1500.H15B+ Lot No. HC2-39

Cryopreserved Human Hepatocytes
Human, Female, Individual

Assured Minimum Yield: 4.0 x 10⁶ cells per vial
Viability: 74%

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	23.6 ± 1.3
CYP2A6	Coumarin 7-hydroxylation	50	17.0 ± 1.0
CYP2B6	Bupropion hydroxylation	500	13.4 ± 2.7
CYP2C8	Amodiaquine N-dealkylation	20	157 ± 27
CYP2C9	Diclofenac 4'-hydroxylation	100	131 ± 17
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	31.0 ± 1.9
CYP2D6	Dextromethorphan O-demethylation	80	31.4 ± 1.8
CYP2E1	Chlorzoxazone 6-hydroxylation	500	105 ± 4
CYP3A4/5	Testosterone 6β-hydroxylation	250	56.7 ± 7.4
CYP3A4/5	Midazolam 1'-hydroxylation	30	5.66
UGT	7-Hydroxycoumarin glucuronidation	100	499 ± 64
SULT	7-Hydroxycoumarin sulfonation	100	15.5 ± 2.2

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 10⁶ /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:	Female
Age:	57 years of age
Race:	Caucasian
Cause of Death:	Cerebrovascular accident
Antibody to 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.

These data were generated by and are the property of Sekisui XenoTech. These data are not to be reproduced, published or distributed without the express written consent of Sekisui XenoTech.

Datasheet prepared 12 July 2019

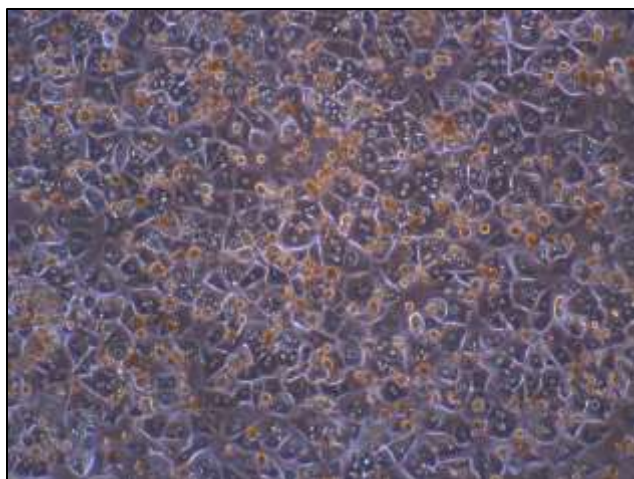
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Hepatocyte Cell Culture



Photomicrograph (100x) of HC2-39 Day 1 of culture



Photomicrograph (100x) of HC2-39 incubation day

Plate Format	Recommended Seeding	
	Density (million cells/mL)	Recommended Seeding/ Feeding Volume Per Well
6-well format	1.4	1.7 mL
12-well format	1.4	650 µL
24-well format	1.4	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)	23.2	Phenacetin O-dealkylation	21.2
CYP2B6	Phenobarbital (750 µM)	7.5	Bupropion hydroxylation	7.2
CYP2B6	CITCO (100 nM)	9.4	Bupropion hydroxylation	3.6
CYP3A4	Rifampin (20 µM)	4.9	Midazolam 1'-hydroxylation	11.3