

CryostaX

Single Freeze Plateable Cryopreserved Human Hepatocytes

HP1500.HP+ Lot No. H1420

Cryopreserved Human Hepatocytes
Human, Female, Individual

Assured Minimum Yield: 5.0×10^6 cells per vial
Viability: 91%

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

Enzyme	Marker Substrate Reaction	[S] (μ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	25.2 \pm 0.3
CYP2A6	Coumarin 7-hydroxylation	50	18.0 \pm 0.8
CYP2B6	Bupropion hydroxylation	500	18.8 \pm 3.1
CYP2C8	Amodiaquine N-dealkylation	20	83.9 \pm 8.5
CYP2C9	Diclofenac 4'-hydroxylation	100	109 \pm 6
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	21.2 \pm 1.4
CYP2D6	Dextromethorphan O-demethylation	80	41.0 \pm 10.7
CYP2E1	Chlorzoxazone 6-hydroxylation	500	259 \pm 12
CYP3A4/5	Testosterone 6 β -hydroxylation	250	135 \pm 10
CYP3A4/5	Midazolam 1'-hydroxylation	30	21.3 \pm 1.1
UGT	7-Hydroxycoumarin glucuronidation	100	417 \pm 16
SULT	7-Hydroxycoumarin sulfonation	100	24.1 \pm 1.6

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

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

Donor Information

Gender:	Female
Age:	26 years of age
Race:	Caucasian
Cause of Death:	Anoxia
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.

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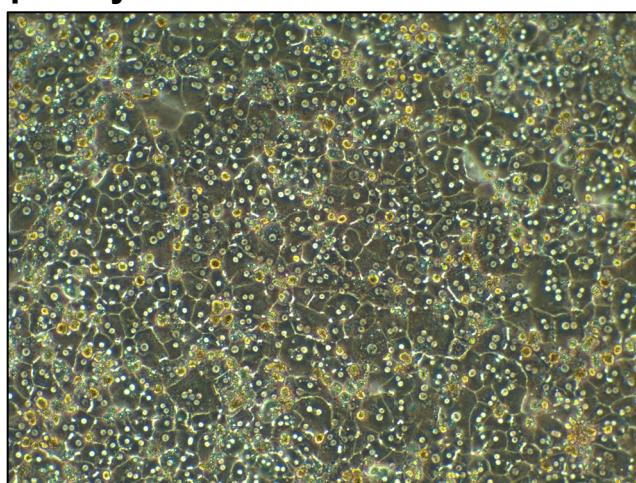
Datasheet prepared 14 January 2021

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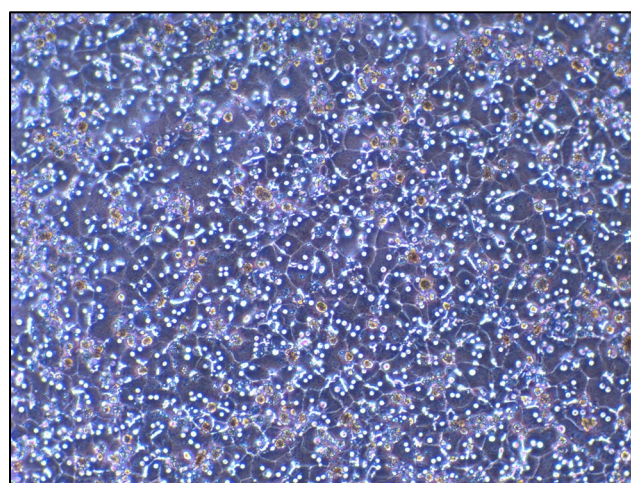
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Hepatocyte Cell Culture

Photomicrograph (100x) of H1420 Day 2 of culture



Photomicrograph (100x) of H1420 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 μ L
24-well format	1.2	330 μ L
48-well format	0.75	200 μ L
96-well format	0.75	75 μ L

Induction Data

Enzyme	Inducer	mRNA Fold Induction	Marker Substrate Reaction	Enzymatic Fold Induction
CYP1A2	Omeprazole (50 μ M)	34.7	Phenacetin O-dealkylation	46.7
CYP2B6	Phenobarbital (750 μ M)	9.7	Bupropion hydroxylation	4.8
CYP2B6	CITCO (100 nM)	7.7	Bupropion hydroxylation	6.2
CYP3A4	Rifampin (20 μ M)	6.7	Midazolam 1'-hydroxylation	2.4